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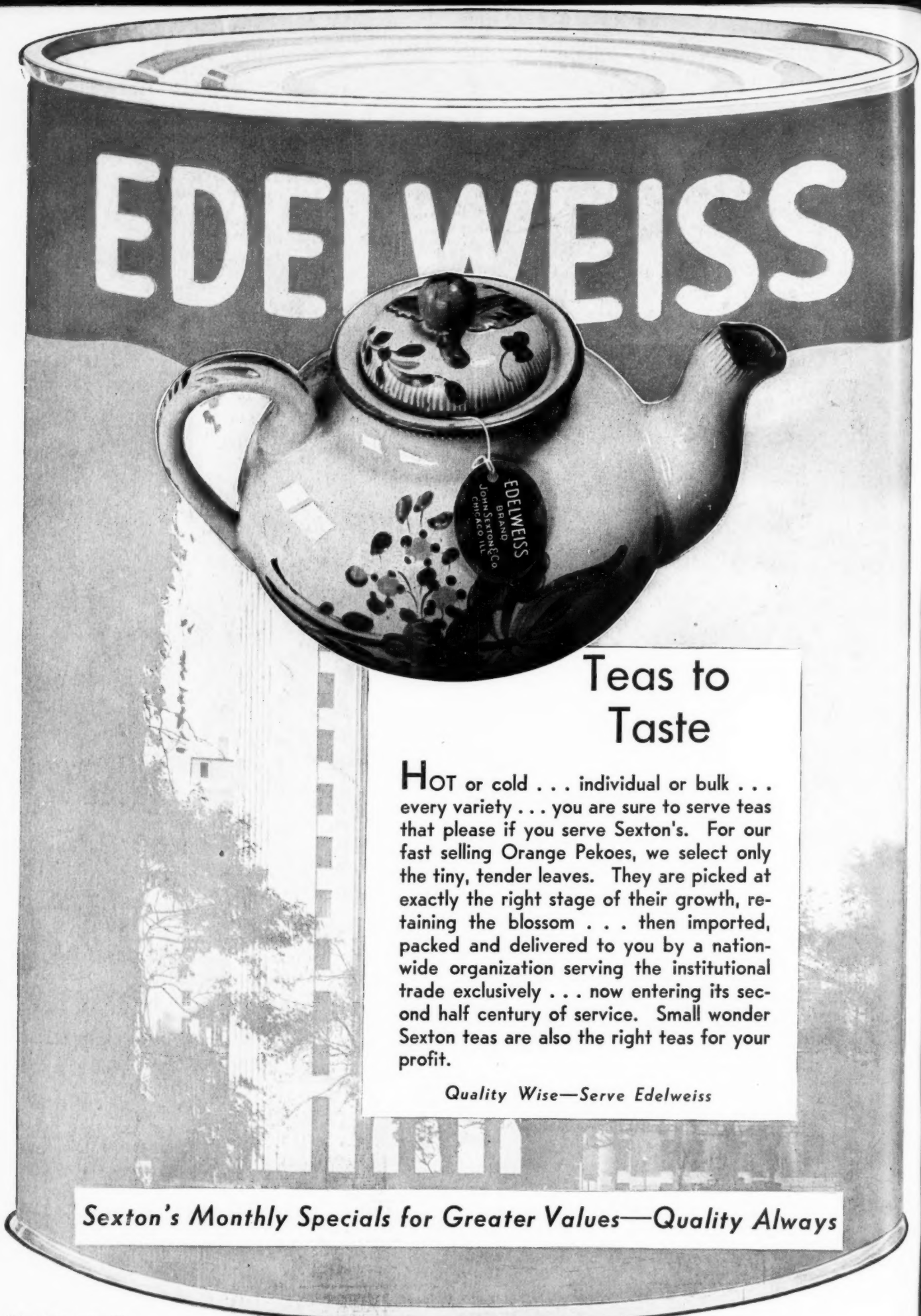

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THE MODERN HOSPITAL

A Monthly Journal Devoted to the Construction, Equipment, Administration and Maintenance of Hospitals and Sanatoriums

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Public Relations Program Can Win Support for Hospitals

By CORNELIUS M. SMITH
New York City

Fewer millionaires and more well fed workmen under the New Deal will affect hospital financing. An adequate program of public education is essential, in the opinion of the president of Will, Folsom and Smith, to develop new sources of support. One of the banes of the public relations field is the "talented amateur" who usually either peters out or costs unduly

THE voluntary hospital now faces the most critical period of its existence. Already deeply in debt or with resources fast dissolving, it is confronted with an abrupt increase in essential operating cost. Even if additional help is received from local government (none apparently is to be expected from the federal government), hospitals will still require assistance in order that they may meet their demands for part-pay service.

Business recovery in itself will go a long way toward meeting the hospital's difficulties, but the New Deal brings problems of its own that must be faced and solved. While many hospitals have ridden safely through the storm of depression and are in a position to benefit promptly from general economic improvement, many others have had their income cut down so low that they now face their hardest test. This is true because there will be a time lag before the full benefits of recovery reach hospitals, with as yet no practical provision in the New Deal for tiding them over the transition period.

Another difficulty that may be permanent rather than transitional is the radical shift that is taking place in the sources of hospital income and support. This involves most seriously the problem of obtaining contributions to meet operating deficits and other emergent needs. If the wealthy friends of former years were still able to give as they have given in the past, hospitals could simply continue to rely upon them. It is sensible, however, to face the facts.

The general objective of the federal administration is plain. In broadest terms, it constitutes a redistribution of national income. Huge fortunes

may not be so great or so quickly acquired, while on the other hand the wage earner and the middle class are expected to have steadily increasing income and greater security. Fortunes that still remain must be heavily taxed in order to finance the extraordinary expenditures of the numerous projects aiming at national recovery.

In short, the New Deal means among other things that the old friends—the few close friends—of the average voluntary hospital are now, and will for a long time continue to be, literally unable to bridge the gap between hospital income and expense.

Chest Contributions Are Inadequate

The consequence of this circumstance must be that the public must pick up and carry the burden that a few people of wealth have supported in the past. There appears, at first, no great difficulty in persuading the public to do this, perhaps because it has been talked about for so long. Yet one formidable obstacle confronts those who are to accomplish this simple task. It is the lack of public education on the subject of the voluntary hospital, together with the lack of precedent for all classes of the public sharing in the annual support of hospitals.

Voluntary hospitals in many communities have received the support of the whole public through the community chest. This is not an accurate analysis. The community chest campaign is all too often viewed as merely a worthy cause by those who contribute to it. No one would argue that the average contributor to the chest is sufficiently convinced of the hospital's need to give for that reason alone. Moreover, chest contributions to voluntary hospitals have been increasingly inadequate in recent years, especially when the gifts from the rank and file of subscribers are critically analyzed.

It is axiomatic among leaders of committees that have raised millions to finance private unemployment relief and social welfare, that the least responsive element in the community is the so-called middle economic group. The generosity of the wealthy American rarely has an exception. The wage earner is widely praised for his generosity, even though there has been an occasional intimation of compulsion in the deductions he has authorized from the pay roll. It is the salaried group—reaching up into the ranks of the professions and the executive offices of corporations and out through the stalls of the merchants—that has, among volunteers and experts in fund raising, the unhappy reputation of being ungenerous.

This reputation is undeserved. These men and women are not ungenerous. They are merely discriminating. They disregard the emotional and thoughtless appeal of a worthy cause. Unlike the wealthy, they cannot buy social or commercial prestige through large gifts; they are canny enough to recognize the standardized arguments of the charity appeal.

All this notwithstanding, they give with marked liberality when they are approached with an appeal founded on fact.

Returning, then, to the problem looming on the horizon of the voluntary hospital, we may recapitulate the situation as follows: The godfathers and godmothers can no longer be expected to meet the net deficit of the voluntary hospital; the whole public must be appealed to, including the middle classes, reputed to be hard-bitten in the matter of voluntary giving. The whole public is not yet prepared to pick up and carry the burden. Even the powerful community chest organizations in various cities are meeting increasing difficulties, despite their public good will and the long established precedent of giving through them.

How, then, is support to be won for the voluntary hospital? There can be only one answer—a comprehensive public relations program. This has been much discussed, widely endorsed, and universally neglected by the hospitals themselves; they of necessity are the only agents that can initiate such an enterprise. Now, perhaps, the voluntary hospital will be forced to do something about public relations, a course which the commonest variety of business judgment admitted was desirable and one that probably would have proved profitable years ago.

Public Education Is Essential

The conception of the community hospital has been expanded, particularly in the past decade. Under the old conception, the hospital took care of the ill and injured who were taken to it. The new concept is of a hospital which cares for the sick and injured who need medical care, including those who "haven't the sense" to go to the hospital. The second type of hospital actually helps to prevent sickness and accident. It is more than a building. It is a movement, a palpable force working for the conservation of life and health throughout the realm of its influence. No hospital can belong to this new type without an active program of public education.

The old hospital cannot become the new by living within itself—by seeking the solution of its financial problem within its own house, futilely hoping to make both ends meet by searching out dubious economies and by victimizing its personnel with further reductions in numbers and pay. That way lie obscurity, oblivion and death.

Only by recalling and reinstating the powerful purpose that caused the founding of the voluntary

hospital, and by promoting this cause in the full dimensions of its latter day conception, can the voluntary hospital hold its own in the American community. If it merely survives this present period of trial, it will eventually succumb to another. The time of trial is never past for such democratic institutions as the voluntary hospital.

Under present social and economic conditions, public education is essential to the new hospital, as well as to the preservation of the old. This, it seems, is generally accepted. The speaking and writing on this subject—necessary as they doubtless are—seem so far to have produced painfully small results.

A Dismal Contrast

The public is shockingly ignorant of what the voluntary hospital is and what services it performs. The melancholy measure of this ignorance is well indicated by misconceptions that are particularly prevalent among the middle and upper classes. The following are typical:

"They soak you for everything that you get when you go there."

"Doctors make a good thing out of the hospital."

"What, go to the hospital and have those young interns practice up on you? Not me!"

"Hospitals must already have more money than they know what to do with, considering all the bequests they get."

"Why can't hospitals be run like any other business? Like a hotel, for instance?"

These essential misconceptions of the voluntary hospital form a dismal contrast to the highly educated public mind on many other subjects. The American people are germ conscious almost to the point of phobia. Even chewing gum is advertised for its health nurturing properties. The American mind is so scientifically educated that radios and automobiles are described to readers in newspapers and magazines in engineering terms, and these descriptions are eagerly read and thoroughly understood. Here, certainly, is a public with a background adequate to appreciate the benefits of science which the hospital alone can provide.

However, where there should be wide acclaim for the voluntary hospital and its work, particularly during the depression, there is at best complacent acceptance of it; at worst, an uncomfortable unfamiliarity that approaches mild distrust. While hucksters and cabdrivers and baseball players revere Einstein for his abstruse theory about relativity, none has heard of Morton and Koch. Anesthesia is loosely associated with a lapse of memory. Lister is vaguely credited with having discovered the cure for unpleasant breath.

Among those trustees and executives who agree that the hospital should have some sort of educational program, there is the occasional one who is inclined to rely for the time being upon the publicity accompanying the hospital's next fund raising movement, or the publicity incidental to the next community chest campaign. Obviously, the publicity of the hospital campaign is the better of the two; but it still falls short of the objectives of a real educational program. The publicity accompanying a campaign is effective for its purpose but the effect wears off through the months and years of silence that follow it. The public is notoriously quick to forget.

The educational program that is needed to bring the whole public to the support of the voluntary hospital is necessarily a substantial one. What such a program includes has been outlined in great detail by others, notably by the American Hospital Association. The individual hospital, of course, must have its own program, patterned to fit its particular needs and opportunities. More important than an outline of an imaginary program are the considerations to be borne in mind in selecting the tailor to fashion the program from the cloth available, to meet the needs of the locality.

Choosing a Public Relations Counsel

But before giving the views of any individual, let us cite the conclusions of the committee on public relations of the American Hospital Association (transactions of the thirty-fourth annual convention) as follows:

"It is the belief of your committee that the office of a public relations counsel will come closest to achieving this purpose.

" . . . That term most closely approaches the proper description of the major function of the public relations counsel—to advise or counsel the hospital as to the best media and means of educating the public. So far as the individual hospital is concerned, it is entirely feasible to have one person in charge of public education. In a large institution it may be necessary that he or she have assistants. But the important thing is that all avenues of public education be coordinated under one head. . . . Real results can be assured by having every act in a program of public education as thoroughly and carefully planned as are the strategic movements and advances of a highly trained military corps."

It should be understood in the first place that no public education program worthy of the name can be undertaken without some cost. To attempt to save money by turning the project over to talented amateurs will generally result either in a program that will peter out or one that, if effective, will cost out of all proportion to its results. It is

also necessary to add that, with rare exceptions, the former newspaper man who has done a few odd jobs in publicity falls, quite definitely, into the unexalted category of semiprofessional, if not that of amateur, when it comes to hospital public relations work.

In fairness, too, to those who are interested in an unexpurgated report, there is another topic that must not be neglected. It is not the superintendent's job to conceive, plan and execute a program of public education. He has not the time. Rarely does he have the necessary training and experience to produce acceptable newspaper copy, and this is one of the simplest tasks of the ordinary publicity man. Finally, the real public relations counsel has a viewpoint toward the program that no efficient superintendent could maintain. The counsel must, among other functions, view the hospital with the eye of the outsider, and with an impartiality that the superintendent could attain only through the rather painful process of splitting his personality.

Hospital Councils May Solve the Problem

What, then, are the qualifications of a competent hospital public relations counsel who can be trusted to plan, estimate and execute a program of public education? Assuming that he is an individual rather than one of the concerns prepared to do such work, he should have a substantial professional background in the education of the public. This should not be composed exclusively of newspaper work, although journalistic experience is customary and extremely helpful. The experience of such a man should include public education through organization work, the formation and direction of committees and the planning and supervision of events that make news. He should have had experience in hospital work or at least sufficient hospital background to explain the hospital's scientific work. He should most certainly have more than the usual, superficial understanding of the typical financial problems of the community hospital. He should be in a position to point to results he has achieved in the special field to be covered. Although this field is comparatively new, there are a few with the experience and other qualifications necessary for this highly specialized service.

It is not difficult to discover the reason why more voluntary hospitals have not already instituted public education programs. Finances have been such that the average board has been reluctant even to discuss any expenditures that are not customarily in the budget. Now, however, public education actually appears to be the one available avenue of escape from these same budgetary problems.

In some cases the formation of hospital councils may solve the public relations problem. This will be possible, however, only when those responsible for the council are willing, and are permitted, to accept the responsibility of establishing a continuous program of public education on behalf of the hospitals they represent. Such a possibility in fact may well be regarded as one of the reasons for creating a hospital council—as one of the activities that hospitals may carry on more effectively and economically by pooling their resources in a central office.

In any event, trustees will unquestionably be relieved to discover that the cost of such a program is much more modest than would be imagined offhand, and that such a program is capable of returning to the hospital more than it costs in earned income alone, to say nothing of donations. An effective program can be conducted for the average community hospital at a cost of from 1 to 2 per cent of the annual budget. The probability is that it will pay for itself two or three times over, at least, through increased occupancy of private rooms and through improved collections. This takes no account of contributions and bequests stimulated by such a program, although these might readily amount to five or ten times the cost of the program without any organized solicitation.

This income, earned and contributed, should not constitute the central reason for beginning such a program. The real objectives lie far beyond and are much larger than the relatively small relief this incidental increase in income will afford. The ultimate objective is to take the hospital's whole public into partnership—to teach the whole public this business of the voluntary hospital. Then, and only then, will the voluntary hospital face the future with assurance.

The Public Will Come to the Rescue

No miracles are needed and no great courage is required. Business men who sit on the average board would think it downright foolhardiness to continue their business without interpretative advertising. The time cannot be far off when the hospital that neglects the education of its public will be counted nothing short of reckless. It faces the continued tempest of financial changes shorthanded, almost alone.

The American people, the whole public, and particularly the intelligent and skeptical middle classes, are essentially friendly. They are by tradition generous. They assuredly will come to the rescue of their community hospital if they are somewhat prepared for the task and are appealed to in a reasonable way. There has been no experience to the contrary.

What Others Are Doing

Hospital Invites Patients to Criticize Service

Every patient, on discharge from Muhlenberg Hospital, Plainfield, N. J., is given a small leaflet with a questionnaire designed to elicit his suggestions or criticisms regarding the hospital service. About 700 replies were received last year, only a small percentage of which expressed dissatisfaction. In each case where there was criticism or complaint, the matter was carefully investigated and a report was made to the patient.

"We feel," says the president of the board of governors, "that by this method of contact we are succeeding in establishing a friendly relationship between the hospital and its patients, with mutually helpful results."

Enlisting the Staff's Cooperation in Reducing Expenses

Realizing that the staff can be of material service in a hospital economy program, the president of the board of managers went before the staff of the John Sealy Hospital, Galveston, Texas, at a regular monthly meeting and thoroughly explained the hospital's financial condition in an effort to enlist the aid of the staff in curtailing expenses.

Revenue from pay patients had gradually decreased for the last three years, demands for free care had greatly increased and the income of the Sealy and Smith Foundation for the John Sealy Hospital, due to failure of certain holdings to pay dividends, was considerably under that of a few years ago. Exact figures on all phases of the hospital's activities were given, together with those of the endowment, investment and income.

While the staff realized that these conditions existed, they had never concerned themselves particularly about it since it was an administrative problem about which each staff member felt he could do little. After the facts had been presented, it was explained that unless the hospital operated within its budget the board would be forced to limit activities. Methods of economy were suggested and full cooperation pledged by staff members who seemed glad to be correctly informed about the hospital's finances.

Substantial reduction has since been made in the use of certain supplies. This is particularly true of x-rays, laboratory examinations and the more expensive medicines. Greater effort has been exerted to get patients out of the hospital as quickly as possible and there has been some increase in revenue from pay patients.

Placing the financial problem of the hospital fairly before the staff gave them an opportunity to understand the situation thoroughly and to help intelligently in an economy program. Results have been so satisfactory that future problems will be laid before the staff.

Laundry Experiment Results in Substantial Saving

In an attempt to discover what is a good average production for each laundry helper, S. T. Martin, assistant superintendent, Regina General Hospital, Regina, Sask., has conducted some experimental work on which he reports as follows:

"We installed a scale alongside of our flat work ironer and weighed each basket load as it came from the ironer over a period of two weeks with an average daily hospital population. We operated the ironer with a staff of six —two shakers, two feeders and two folders—working from 8 a.m. to 5 p.m., six days a week, and found that our average production per operator per hour was from 32 to 35 pounds.

"As an experiment we changed our hours to 7 a.m. to 4 p.m. Two workers were taken from the hand ironing room and a staff of eight was put on the flat work ironer. In a week we had stepped up production per operator per hour to between 45 and 50 pounds, depending on whether the loads were sheets and spreads or small goods. We found that our complete day's work could be finished by noon and in the afternoon all members of the staff applied themselves to the hand ironing.

"The saving has been remarkable. Since the ironer has been running at capacity we are getting more than 50 per cent more wear from our canvas and paddings. Steam is cut off for three hours a day and we have been able to do without the services of one girl. The wash men have been saved one hour a day since they are able to wash sufficient loads in the afternoons so that the flat work ironer can start at 7 in the morning. It had been the practice for them to come in hours earlier each morning."

Occupancy Figures Rise Sharply When Charges Are Reduced

A practical demonstration of the validity of an oft stated economic law has recently been made by the Methodist Episcopal Hospital, Indianapolis. The law is that through larger production, costs can be lowered and a greater profit can be made from selling at a lower price.

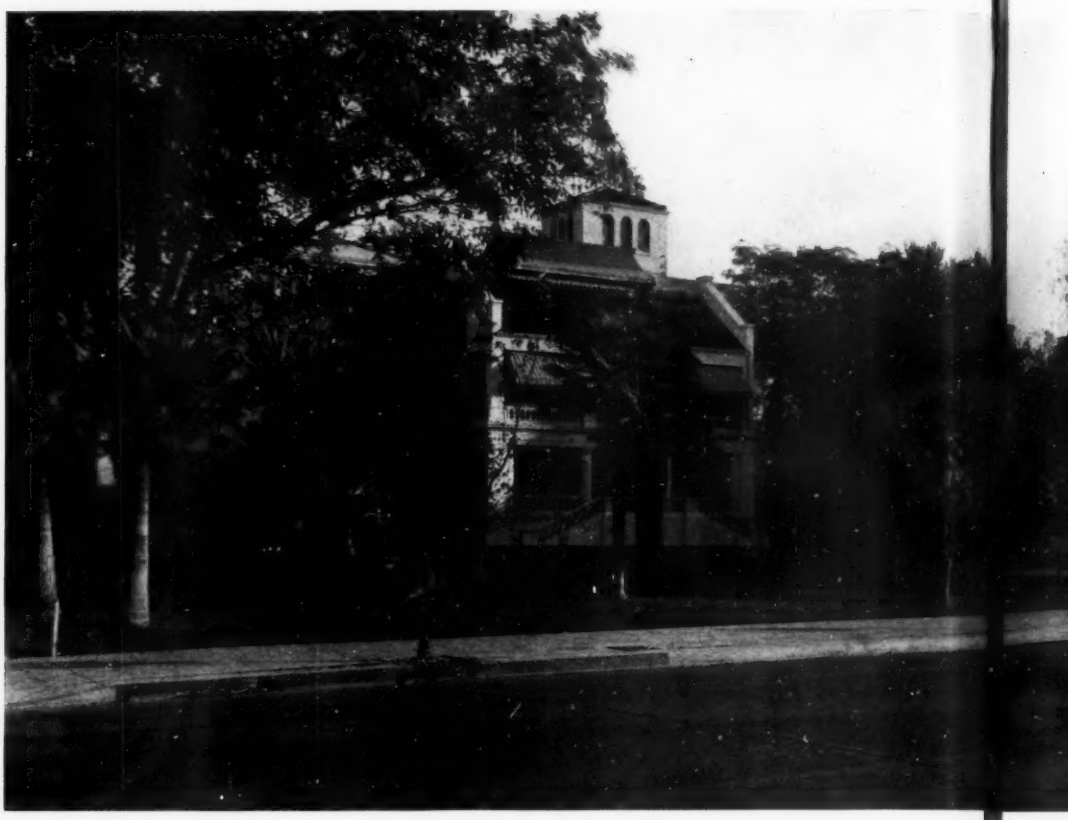
The Methodist Episcopal Hospital has, like other nongovernmental institutions, witnessed a gradually falling occupancy rate during the four years beginning with 1929. In that year the occupancy reached a monthly peak of 72. The highest monthly figure in 1930 was 67.5 and in 1931 the peak was 64.5. During 1932 the hospital's occupancy continued to decline until in April, 1933, it reached a low point of 59.

At this time the four Methodist hospitals of Indiana adopted their five-year "new deal" program of hospitalization. One of the principal points in this program is the reduction of hospital charges. The Methodist Episcopal Hospital has reduced charges two times for rooms, laboratory and x-ray work, operating rooms and all other forms of special charges.

The result of this action is striking. Occupancy figures have been as follows: May, 60; June, 61.5; July, 62.5; August, 62.5; September, 66; October, 67; November, 68; December, 70; January, 1934, 75, and February, 85 —an increase each month.

"I am of the opinion, as I have always been, that we can fill our hospitals if we make the necessary adjustments in price," writes Rev. John G. Benson, superintendent, "and in getting more patients at even less money we are giving a greater service. . . . We shall continue to give back to the public the benefit of increased business in the form of reduced charges."

Probably you can think of one or more practical ways to save time or increase efficiency. The Modern Hospital will welcome your ideas to put before other hospitals



By
MILDRED RIESE
Superintendent,
Orthopaedic Hospital-School,
Los Angeles

A Hospital School That Straight Bodies

WHEN Franklin D. Roosevelt, before assuming the presidency, visited Warm Springs, Ga., he focused a spotlight of public attention not only on hydrotherapeutic treatment for the after-results of anterior poliomyelitis (infantile paralysis) but on all orthopedic work now being done in this country.

On his last birthday, more than a million dollars was contributed by American citizens to further development of the Warm Springs Foundation. This birthday gift to America's handicapped, through the President of the United States, served greatly to emphasize the ever present need to restore to crippled persons the functions of which they have been deprived by sickness or accident.

Since 1917, when a small clinic was opened in Los Angeles by the Crippled Children's Guild, the scope of its work has grown until the founder and chief of staff, Charles LeRoy Lowman, M.D., today sees the Orthopaedic Hospital-School of Los Angeles housed in seven buildings of fine construction covering three and one-half acres. These are the memorial building, the main hospital building, the physicians' and surgeons' building, the nurses' home, the brace shop, the elementary school building, the power house, the laundry and the employees' residence.

The Orthopaedic Hospital-School is operated by the Los Angeles Orthopaedic Foundation, a private corporation organized on a nonprofit basis to serve crippled children. Last year 83 per cent of the hospital work was on no-pay basis, 12 per cent on part-pay, and 5 per cent on full pay, as shown on the diagram on page 46. The community chest allows a generous budget for maintenance, but to carry on the work to its full extent other contributions are necessary. The foundation is concentrating on an attempt to obtain an endowment fund.

The handicapped children think of the Orthopaedic Hospital-School as a haven of hope, for it has become an institution dedicated to three distinct services to the physically handicapped girl and boy—physical rehabilitation, mental development and social and civic opportunity.

In its entirety, orthopedic (from the Greek: to make a straight child) hospitalization offers an opportunity for a corps of trained and experienced workers completely to change the crippled child's program for life. It affords a means of training

The scope of its work has grown until now the Orthopaedic Hospital-School of Los Angeles is housed in seven fine buildings.

Gives Crippled Children and New Hope

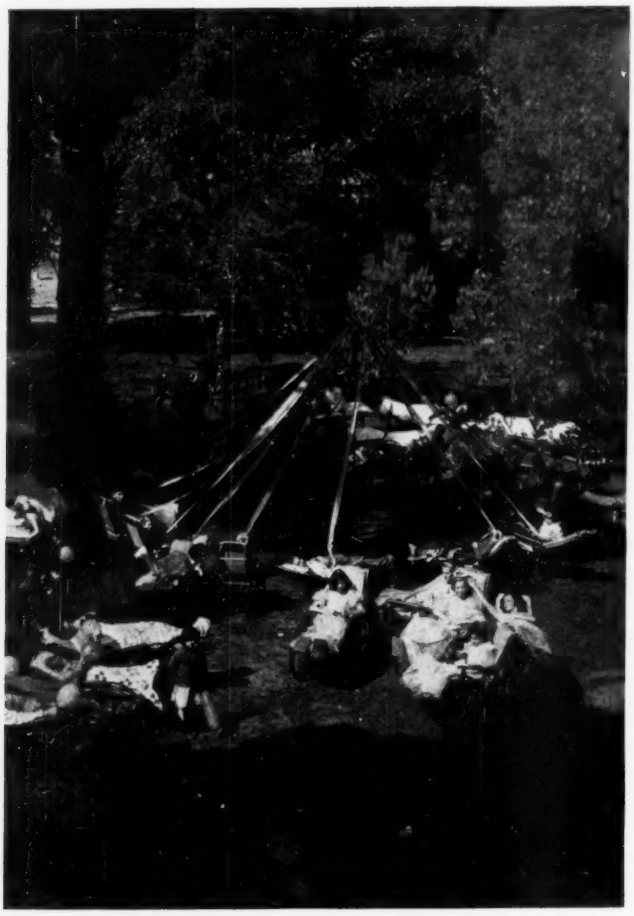
him to become a useful member of the community, synchronizing with mental and occupational development an alleviation, so far as modern surgery and medicine permit, of the physical condition.

A large number of children are admitted through the out-patient department of the hospital, and here a volunteer hostess welcomes them, takes them to the registrar's desk, and then to the medical social worker. As the appointment system prevails, examination of the patient is made in due course by the physician in charge of the orthopedic clinic, who is accompanied by a nurse and medical historian. Examination reveals that many of those admitted through the out-patient department do not require medical or surgical attention. Rather, muscle training and reeducation are deemed the requisites, and so appointments are made for physical therapy, gymnasium, hydrotherapy, or hydrogymnasium work as prescribed by the physician. This is correlated with occupational therapy in the hospital and the out-patient department.

Emergency and private cases are, of course, admitted directly to the hospital. Eighty-five beds are available through which an average of 150 patients pass monthly. The hospital is a three-story building with porches on the west and south sides. As may be imagined, these porches are most popular as soon as the patients have recovered from operative work. The graphic charts on page 46 show the occupancy, patient day stay, amount of charitable work and other data.

From the day the child is admitted to the Orthopaedic Hospital-School encouragement of new interests is undertaken. The patient is taken by the house mother to meet the head nurse of the floor, who, in turn, immediately makes the newcomer acquainted with children of his own age. Thus are formed friendships that continue during the entire hospital stay and beyond. Usually, there is a sigh of relief when the child learns he will not miss school work. Much of the schooling is done at the bedside, and there is a school building for elementary ambulatory cases. When the child leaves the hospital, his school work is not neglected; it follows, if necessary, into the home.

The thought that each individual is entitled to a well defined niche in life and must not suffer because of lack of opportunity is paramount. Under the guidance of a counselor for the boys and one for the girls, a sociologic program tying in with



A May party is held annually on the grounds. Two Maypoles are used, one for the wheel chair patients and one for the ambulatory patients.

the activities of the alumni association is carried out for all children more than fourteen years of age. Bimonthly meetings assist character building. The drama section, a popular department in the alumni association, offers the boys and girls opportunities to take part in plays.

Volunteer service has done and is doing much for the Orthopaedic Hospital-School. Without the cooperation of these volunteers, which is extended into many branches of institutional performance, much of the work done in behalf of the crippled patients would have to be curtailed. Had it not been for the generous services of ninety physicians and dentists on the staff of the Orthopaedic Hospital-School, the care of the 14,300 handicapped children who have been admitted to the institution would have been greatly hampered. Under Doctor Lowman, the staff is divided into fifteen branches: orthopedics, surgery, medicine, endocrinology, dentistry, neurology, dermatology, neurosurgery, speech, otolaryngology, ophthamology, urology, proctology, psychology and gynecology.

The consultation service is most active, and to minimize children's trips to the hospital, orthopedic specialists in surrounding cities are frequently called on to check the cases in their communities. These are specialists known as district consultants, and, in addition, a field nurse visits the children's homes to check conditions.

The Emmanuel Sunday School class in the First Congregational Church, of which Doctor Lowman was a member, was the first group to become interested in taking care of these crippled children, who came to Doctor Lowman for treatment in 1911. Many of the workers still take an active part in the Crippled Children's Guild and in the auxiliary work of the institution. Some of these members belong to the Monday Ladies Auxiliary, and they come every week to make gray linen articles for the operating room. The auxiliaries make practically all articles needed in the institution, care for the mending, make dressings, sponsor benefits, and do nearly all that it is practical to ask the lay person to do. Last year, an average of 166 volunteer workers gave 17,487 hours of service to the hospital every month.

Orderlies Are Medical Students

A careful selection of personnel plays a part in the happy atmosphere at the Orthopaedic Hospital-School. Not only is a general medical training required, with postgraduate development in the many branches of orthopedic work, but special aptitudes in character and a joy of service in doing for the handicapped youngsters and bringing them to normal functioning are most necessary. These qualities in the working personnel are reflected in the patients. For example, the orderlies are students from the Loma Linda Medical School, and this fine group of boys, whose life work will be healing, are brought into contact daily with those who require help. Gentleness and a desire to do for the unfortunate are born early in the lives of the students, who receive a practical training far above that received ordinarily. The orderlies are called on nearly every day in this land of sunshine to aid the patients in obtaining the benefits of the hospital's grounds. The grounds because of their beauty and accessibility offer happy, active play space for the children in the afternoon.

Recreation for handicapped children has many awakening aspects. Games such as volley ball, croquet and even miniature golf can be played from wheel chairs, and early in the spring plans are made for the annual May party held on the hospital lawn. Two Maypoles are used at these parties, one for the wheel chair patients and one for the ambulatory patients. Crippled children, as a rule, are happy every waking moment even though they are confined to a wheel chair or bed.

If recreation is opened for these children, the development is marked. There must be, of course,

Volley ball is one of several games that may be played by children sitting in a wheel chair.

an enthusiasm diluted with caution. To illustrate what can be done: when a play is staged the actors (patients) present themselves and a part is written for each one. Around such parts especially written, the play must be woven. In one play several girls wearing plaster jackets could move only their arms and heads. They were cast as water nymphs to teach the princess how to swim.

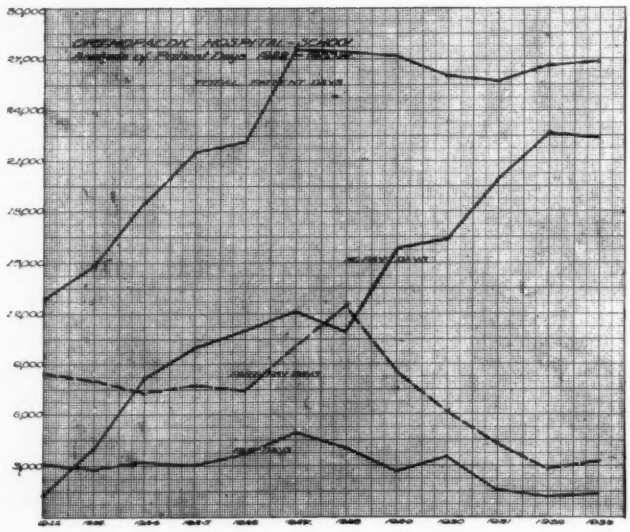
A hospital as near Hollywood as is the Los Angeles Orthopaedic Hospital-School naturally takes advantage of that fact. Yes, it has a "studio," and this has been most helpful in obtaining both still and motion pictures for case histories as well as for teaching purposes. Not only does the publicity department receive much of value from the studio but a medical artist, with years of background in the Harvard Medical School, does much medical art work, specimen mounting and chart making.

The physiotherapists, who are university graduates, occupy important posts in the activities of the Los Angeles Orthopaedic Hospital-School. While they work under a physician's prescription, they must, by training and personality, be fitted for the type of development they undertake.

A most important work is performed in the hydro-gymnasium, started in the lily pond on the hospital grounds, in 1924. This pool work has from the beginning been approached from a purely scientific basis, and great achievements are recorded for the ten years it has been in operation. Treatments are given on physicians' prescriptions by the staff of physiotherapists, and in dealing with poliomyelitis every precaution is taken not to overstretch or overtire the weak or affected muscles.

Hydro-gymnasium treatments make possible the necessary exercise without tiring because practically all the force of gravity is eliminated under water, and its warmth is soothing and relaxing. An overhead trolley makes it possible to transport patients from the ambulance en-

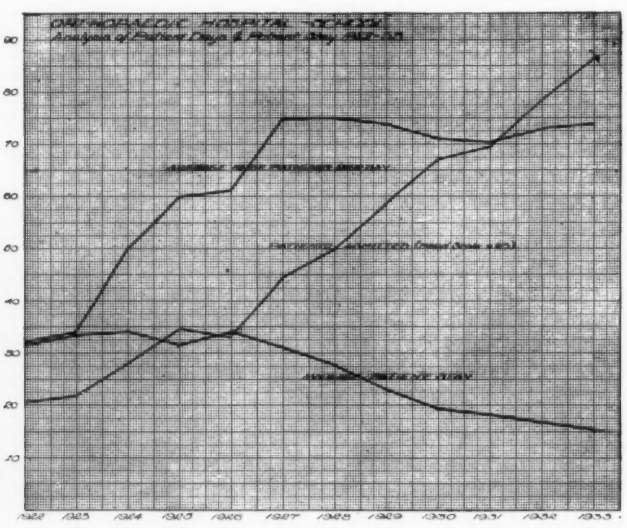
Pool work is approached from a scientific basis with great achievements recorded.



Analysis of patient no-pay, part-pay and pay days.

trance to other departments and to lower them into the pool. Postoperative patients can through use of the hydro-gymnasium be taught to walk or to use their limbs before weight-bearing would be possible outside of the pool. Children with cases of spinal fusion take pool treatments to strengthen trunk muscles after months in plaster jackets. In arthritic cases effort is made to retain joint functions and to keep up muscle tone. The pool extends into the gymnasium building, and a steel curtain can be lowered in inclement weather which, as is generally known, is most unusual in Los Angeles. A small pool serves nerve injury patients and a sea-salt pool accommodates patients with draining sinuses.

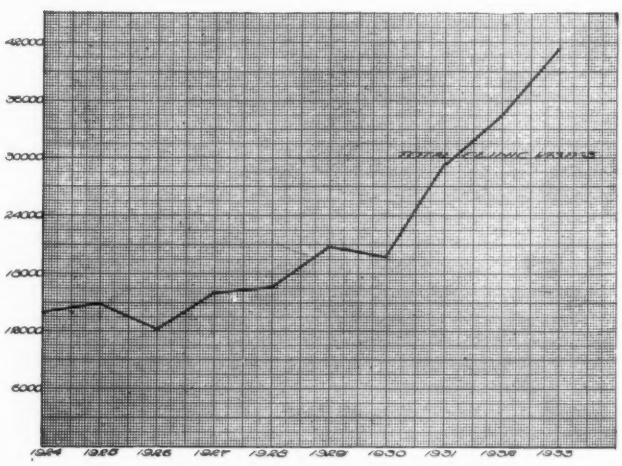
Careful follow-up of patients makes it possible to obtain blood for poliomyelitis serum. The laboratory is a service station supplying poliomyelitis serum to Southern California, Arizona and other southwestern localities. Planes have been chartered to rush the serum to remote places. This service was begun in 1927, and to date more than 50,000 cc. of serum have been given out. Large quantities are used at Los Angeles General Hospital.



Analysis of patient days and patient stay, 1922-33.

In the out-patient department are several clinics, the value of which is not always recognized in orthopedic hospitals. The connection between eye balance and body posture makes the eye clinic most important and necessary. The psychologic work has been functioning under the same head since before the hospital was built. In recent years a mental hygiene department guided by a psychiatrist makes for most interesting discoveries behind the stereotyped response, "just fine." Interesting finds in the neurologic and neurosurgical departments have been made through this clinic.

In the memorial building the demonstration room for parents is equipped for dietary and nursing service to instruct parents while the children are being treated. The auditorium is used daily, and here on Sunday all creeds meet under the leadership of Dr. Robert Taylor, head of the department of religious education at the University of Southern California.



Number of clinic visits, 1924-33.

Monthly meetings of the Parents and Workers Club are held in the auditorium where doctors and workers give parents an insight of different diseases and their treatment. The key room is the auxiliary room on the top floor, which is equipped for volunteer workers to sew and make dressings. Adjoining is a diet kitchen where workers have their luncheons.

The foregoing describes some of the mechanical aids that are part of the functioning of the Los Angeles Orthopaedic Hospital-School. It fails, and necessarily must fail, to describe the spirit of patient and personnel. They work together intelligently and harmoniously for the one purpose of restoring to the handicapped persons that which has been taken from them.

Teaching Hospital Selects a Plan Well Suited to Its Needs

By A. J. LOMAS, M.D.
Superintendent, University Hospital, Baltimore

With an Evaluation of Plans by

EDWARD F. STEVENS
and
LUCIUS R. WILSON, M.D.

HOSPITALS, like the human beings they serve, live their lives and pass on. Some of the more famous buildings have functioned for many a decade, and, in odd cases, for centuries. Others, not so well built or planned, have shorter spans of life.

The present University Hospital in Baltimore, or the main portion of it, was erected in 1896. It was not built on durable principles, nor was it well adapted to a stress of work or to changing demands. For many years it has been taxed beyond capacity and has been unable to keep up with rapid developments in hospital practices. This deficiency has been felt by staff and patients.

The state legislature of Maryland, two sessions ago, appropriated a considerable sum of money for a new building. This project has been studied and planned and the building is now being erected. It is hoped that the new hospital will be ready to function in late summer.

When I first started to study the project, I was immediately impressed by the fact that many of our problems involved the figure four—male and female, colored and white surgery. The same is true in medicine—private and semiprivate, white

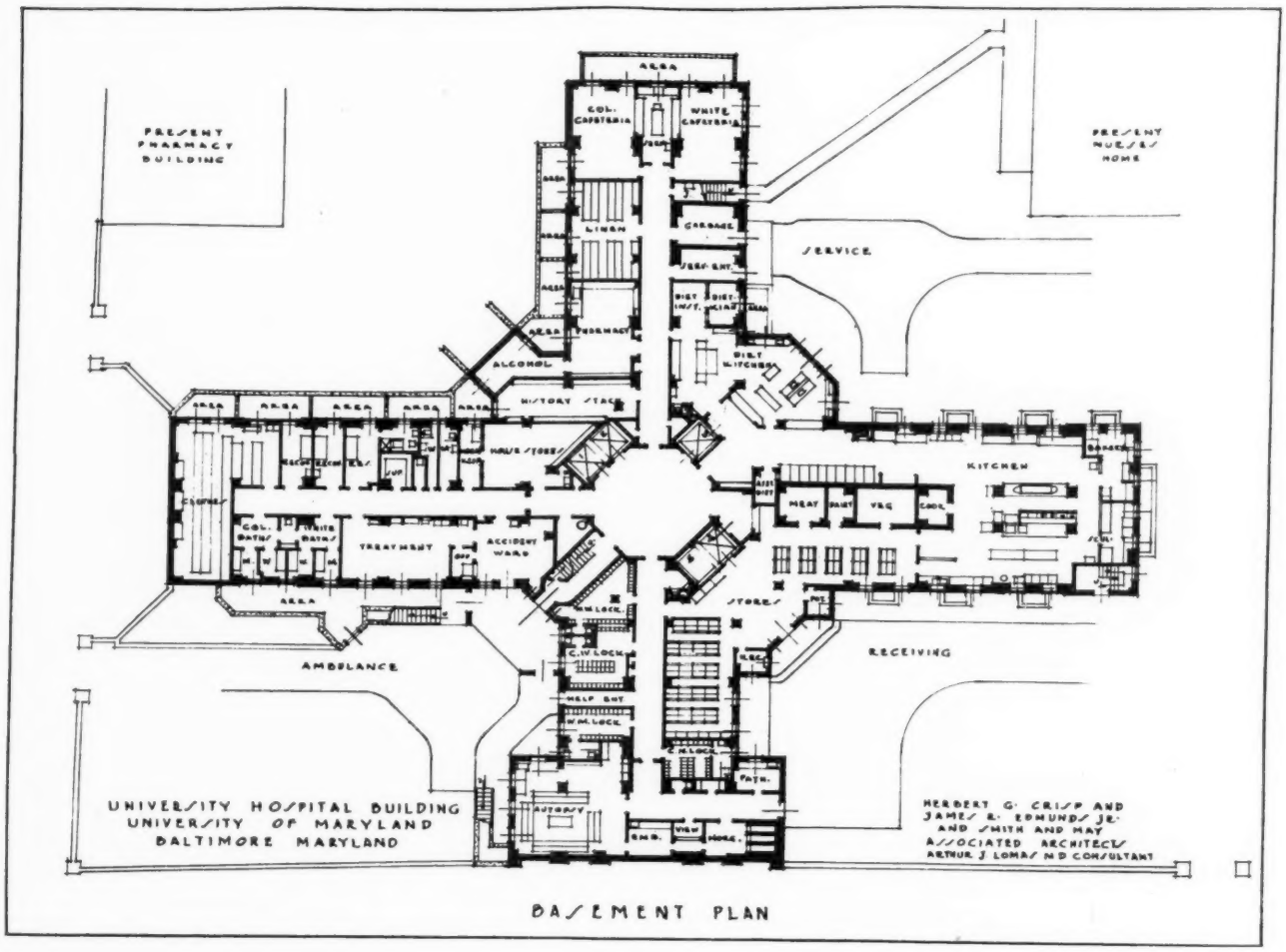
ward and colored ward—and in obstetrics, pediatrics and other departments. It is difficult to arrange an average building with four separate and distinct but nevertheless continuous and contiguous parts on each floor without having to pass through one to reach the other. Again, these floors must be arranged for teaching and there must be a sharp boundary between the teaching portion and the pay bed portion, but each must be kept pretty well in its own section or department.

After some study a plan the shape of a St. George's cross or a plus sign came to my mind and I became convinced of its appropriateness. The site was long and narrow so that the building might have length but there was not sufficient depth for extensive wings. Considering all factors, it seemed that we had found a generally useful scheme. Such a plan certainly gave us our four; it provided a means of communication up through the center, through what I have dubbed the neural canal, readily accessible to all departments but not transgressing any one department. It also provided for separation between the teaching wards and pay wards and still gave each department its own particular floor or portion to itself.

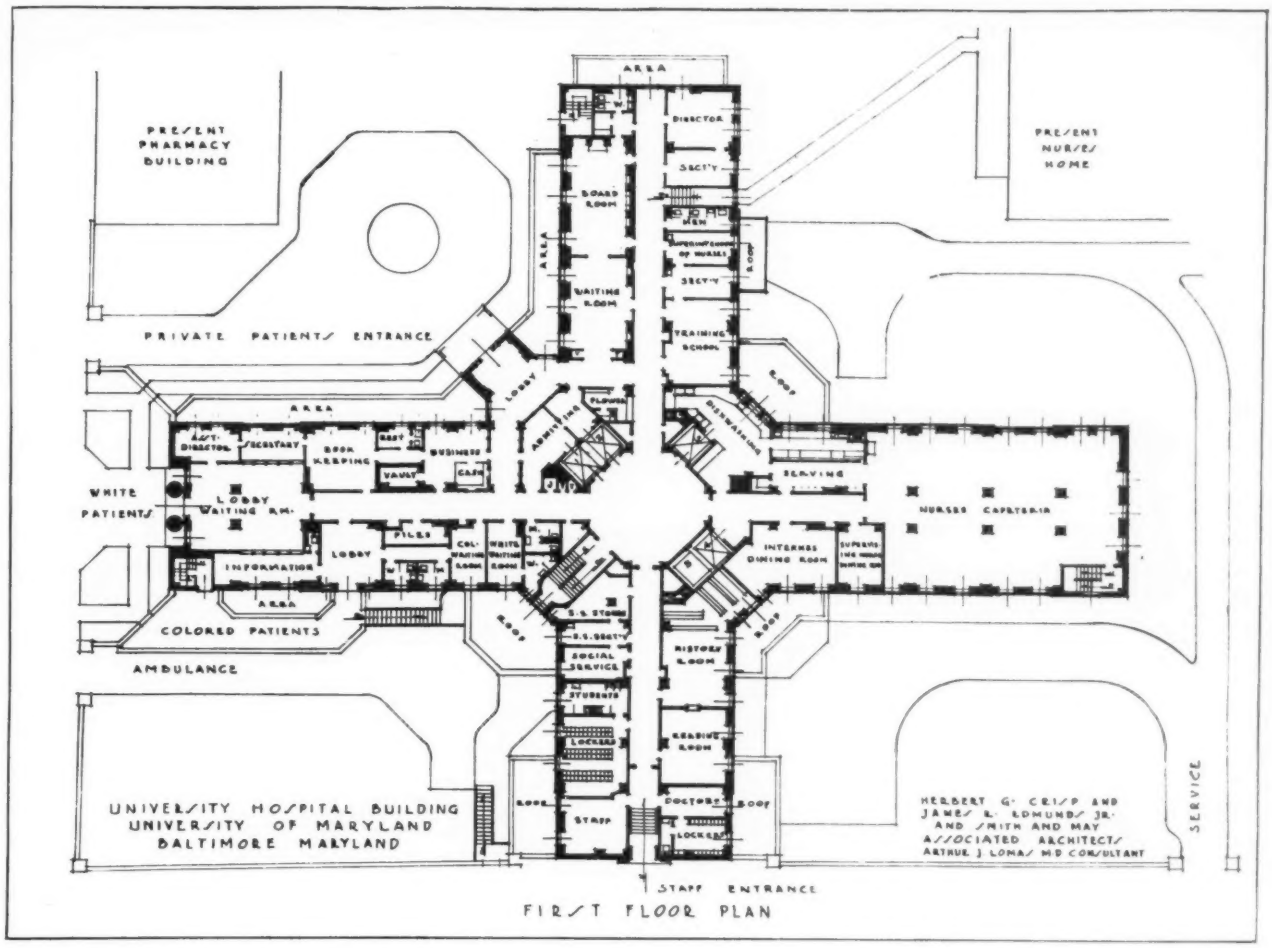
The sixth floor demonstrates my point. Here we have a cross—wings to the north, south, east and west—with the elevator service and staircase in the center. The north wing has its semiprivate rooms for obstetrics; the south wing has its private rooms for obstetrics, with its own elevator service. The west wing for colored obstetric patients has its own elevator service, and the east wing, for white ward obstetric patients, has its own elevator service. The whole floor is devoted to obstetrics. The necessary offices, teaching and examining rooms and also suitable nurseries are provided. All patients on this floor are under proper, specialized obstetric observation, supervision and nursing, separate but contiguous.

Patients' rooms are placed in the spokes of the cross, exposed to all the ventilation and sunlight obtainable. The corners or less attractive portions are used for service, and the center or least attractive part is used for traffic.

Such a scheme, of course, is not new, but it is certainly unusual. Fifth Avenue Hospital, New York City, is shaped like a St. Andrew's cross and a Chicago hospital resembles a double St. George's cross. I am rather surprised that plans of this kind have not been adopted more frequently. Such a plan permits all manner of schemes. For instance, the main kitchen is in the basement. This, together with a portion of the storeroom with its ice boxes,



BASEMENT PLAN



FIRST FLOOR PLAN

takes up the whole of the west wing. Adjoining in the south wing is the diet school and at this southwest corner is the freight elevator. Food trucks do not traverse corridors to get to an elevator but pass into the rear entrance of the elevator directly at this point. Nor do they traverse ward corridors when the truck leaves the elevator. Again they pass through a rear door in the elevator into the corresponding serving rooms at each floor level. These, incidentally, are serving rooms and not ward kitchens. No food will be retained in these rooms and only the food necessary for the meal will be taken there. When the meal is served all food will be returned to its station in the basement of the building.

Second Floor Is Unusual

Alongside the freight elevator shaft are two high speed dumb-waiters. They run from a food station in one portion of the diet kitchen which is provided with all the necessary equipment for the preparation and storage of both hot and cold necessities. Twenty-four-hour service is provided here and all requirements are requisitioned through a specially installed compressed air carrier. Such orders are filled at this point and returned promptly through the dumb-waiter service to the required floor level.

The first floor provides the usual administrative offices, nurses' dining rooms and waiting rooms. The second floor is, I think, rather unusual. Practically all laboratory or specialized treatment service has been concentrated here. For instance, the north wing accommodates the department of roentgenology. The west wing contains what might be called the surgical specialties, such as male and female cystoscopy—adjoining roentgenology—nose and throat service with its bronchoscopic clinic, the department of industrial surgery and special examining rooms for ophthalmology. In the south wing are found the medical specialties, including cubicles for basal metabolism and electrocardiography and oxygen chambers. There are also small special laboratories and offices for the professor of medicine and his immediate associates. The east wing contains the department of clinical pathology—bacteriology, serology, clinical microscopy and biochemistry—with a large interns' laboratory and a spacious laboratory for students. In addition to these facilities, the east wing also contains the necessary service rooms.

Operating and delivery suites are in the east and west wings of the seventh floor and approach to these rooms for other than the operating personnel will be from the eighth floor through corridors

leading to the balcony entrances, much on the order of the Mayo system. All sterilizing and preparation of sterile supplies will be performed in the north wing of the seventh floor. There will be no preparation or sterilizing rooms in ward wings. All sterile trays, dressings and other material will be prepared in this special department and delivered to the various wards as required through a high speed dumb-waiter service on the north side, similar to the food dumb-waiter service on the south side. This plan concentrates the preparation of such material and, of course, saves a great deal of floor space in each ward wing where otherwise a considerable amount of duplication would be necessary.

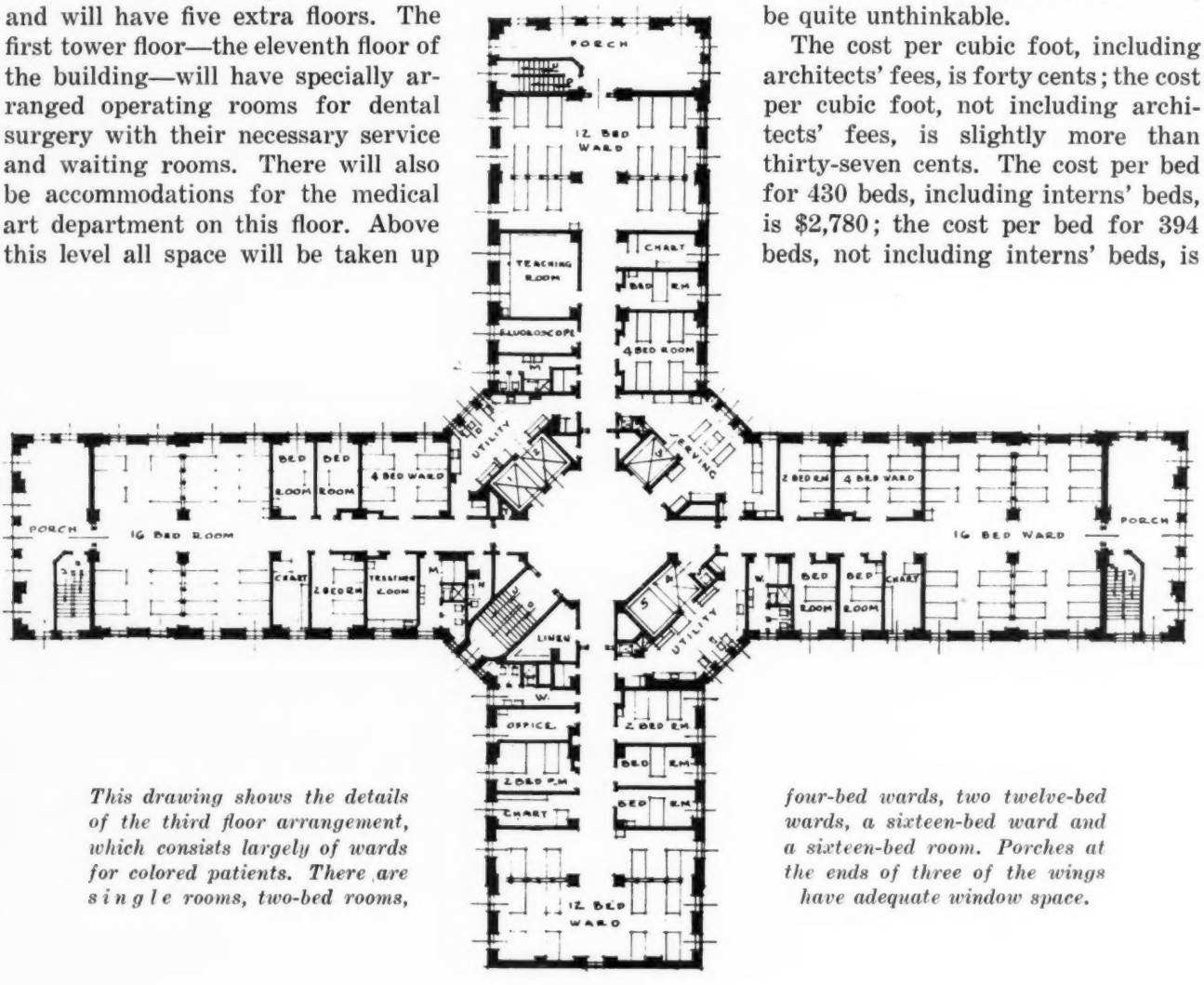
The arrangement of the space comprised between the second and the eighth floors has been predicated on teaching. From the eighth floor up to the tenth floor are the pay accommodations for private and semiprivate patients, although, as I have mentioned before, a section of the obstetric and pediatric floors has been set aside for taking care of private and semiprivate patients.

The building is ten stories high. The center portion will be carried up into a tower and will have five extra floors. The first tower floor—the eleventh floor of the building—will have specially arranged operating rooms for dental surgery with their necessary service and waiting rooms. There will also be accommodations for the medical art department on this floor. Above this level all space will be taken up by noise producing machinery, such as blowers and exhaust fans with their large ducts, elevator engines, and mattress sterilizers. Storage space and an animal house will be provided and a large water tank will surmount the tower. Such equipment as electric circulating pumps, economizers and ice machines will be found in a subbasement where they will be isolated from the hospital proper.

The exterior of the building is plain and substantial. It is of brick construction. A limited amount of cut stone is used for decorative purposes about the main entrance on Greene Street and the staff entrance on Redwood Street. The building will be heated by purchased steam which will come into the building the same as gas and water services, thus doing away with the necessity of a boiler plant. If a boiler plant had been included it would have had to have been placed in an already congested site.

Approximately $1,200,000 is available for the building. Present conditions in the general commodity and building material market have made it possible to erect a substantial 400-bed hospital for a sum that would, in normal times, be quite unthinkable.

The cost per cubic foot, including architects' fees, is forty cents; the cost per cubic foot, not including architects' fees, is slightly more than thirty-seven cents. The cost per bed for 430 beds, including interns' beds, is $2,780; the cost per bed for 394 beds, not including interns' beds, is



This drawing shows the details of the third floor arrangement, which consists largely of wards for colored patients. There are single rooms, two-bed rooms, four-bed wards, two twelve-bed wards, a sixteen-bed ward and a sixteen-bed room. Porches at the ends of three of the wings have adequate window space.

$3,035. The prices given above include fixed equipment but not x-ray equipment, oxygen chambers and furniture.

The present hospital building will be remodeled at an early date and used for the general outpatient department which will provide a much needed service for the medical school as well as for the sick poor of Baltimore.

Herbert Crisp and James Edmunds, Jr., of the firm of Joseph Evans Sperry were retained by the board of regents as architects. Both of these men have long been identified with hospital construction, and many hospitals in and around Baltimore bear testimony to their skill and knowledge of hospital planning and detail. Associated with them in designing the hospital has been Howard May of Smith and May, another well known firm of architects. This firm has been familiar for many years with the general progress of the university development.

Reeder, Eiser and Akers, consulting engineers, were engaged as consultants on the enterprise.

Two Experts' Opinions — The Author's Reply

EDWARD F. STEVENS, Boston architect, comments on the plans as follows:

While the planning of the University Hospital differs but slightly from that of any general hospital of the same size, it has to provide for the student body enlarged laboratories and facilities.

The form of the plan selected is one that has been used, with various changes, in hospitals throughout the world. The University Hospital, London, used this form for its main building; the Good Samaritan in Cincinnati used this central feature not only for four pavilions, but for six; the Children's Hospitals, both at Boston and Worcester, used this central service four-way plan.

In many cases of the × or + plan, there is more or less waste space in the center, but in the Baltimore plan the space is well utilized. The only unfortunate features are that the central space must always be dark or artificially lighted day and night, and there can be little circulation of air.

The fact that all elevators are bunched together is an excellent feature, but one can hardly see why these elevators should have an entrance on the utility room. Would it not be difficult to manipulate a bed from the side door of elevator No. 4? Why not enter from the rotunda?

The T or H plan might be made to function for this site and would eliminate the dark corners.

Basement.—The kitchen plan should function satisfactorily, but it would seem that the kitchen stores should be shut off from the service entrance. The linen room seems a bit small, with no very close connection with the laundry.

First Floor.—The plan is admirably arranged for the reception of white and Negro patients. The main waiting-room for private patients is a long distance from the main lobby.

Ward Floors.—The sixteen-bed (Rigs) ward unit is the most economical disposition of beds for such large wards. A few subutility rooms would simplify service, however.

Seventh Floor.—From my own practice, four major operating rooms would be insufficient for a 400-bed hospital, if there are the usual number on the operating staff. I should feel that the entire floor should be devoted to surgery, providing separate rooms for eye, for ear, nose and throat, for fractures and the like.

The nurses' workroom is too inaccessible from the operating department.

Should not the surgeons' scrub-up sink be located in the corridor instead of in the operating rooms?

Even with the present low cost of labor and materials it is hard to conceive of such a building as this being erected for 37c per cubic foot, or with so much space devoted to teaching, for $3,035 per patient's bed, and I think the architects are to be congratulated.

The exterior is simple and interesting.

DR. LUCIUS R. WILSON, superintendent, John Sealy Hospital, Galveston, Texas, and the chairman of the hospital planning and equipment committee of the American Hospital Association, makes the following comments on the Maryland hospital plans:

From a study of the floor plans and the description of the University Hospital by Doctor Lomas, one realizes that careful thought has been given to the provision of necessary facilities to be used by the staff and personnel in rendering the best of care to patients. However, in including all these facilities, some areas of the plans seem to be quite jammed. This is particularly true around the rotunda on the third to the sixth floor, where two utility rooms on each floor have been inserted in two irregular spaces behind elevator shafts and each utility room has been made to serve two divisions totaling more than forty beds. Also, on these floors one serving room and one linen room are

made to suffice for approximately eighty patients in four divisions.

I feel it would have been much better to have located the nurses' station at the entrance of the ward for supervision of the ward and accessibility to the service rooms.

I cannot share Doctor Lomas' enthusiasm about planning a building in the shape of a cross. The advantage of having the central portion, which he has dubbed the neural canal, through which all service can easily be transmitted to the floor above seems to me to be offset by the congestion in this space, the irregularities in shape of the rooms bordering it, and the lack of natural illumination and ventilation.

Traffic lanes for patients, visitors, staff, employees, and students, all converge in the rotunda on the first floor. This will result in some congestion and has the undesirable feature of mixing the various groups. Medical students, even under the best of control, are noisy when traversing hospital corridors. For this reason I like to plan their entrance near their locker room as was done here, and then to provide special stairways and elevators for their use. For economy's sake, the stairway in an enclosed fire shaft may be used and the students' elevator assigned to other functions, such as transportation of freight, laundry, maintenance employees, supplies and various other uses.

I mention with some feeling the ambulance drive as our hospital has one of the same design, and we are now planning to change it either to a termination in a large enough circle for vehicles to turn without backing or to a U-shaped drive with an entrance and an exit. In this case I believe it would have been advisable to have continued the drive on beyond the necropsy room into the street. The same condition exists in the service drive.

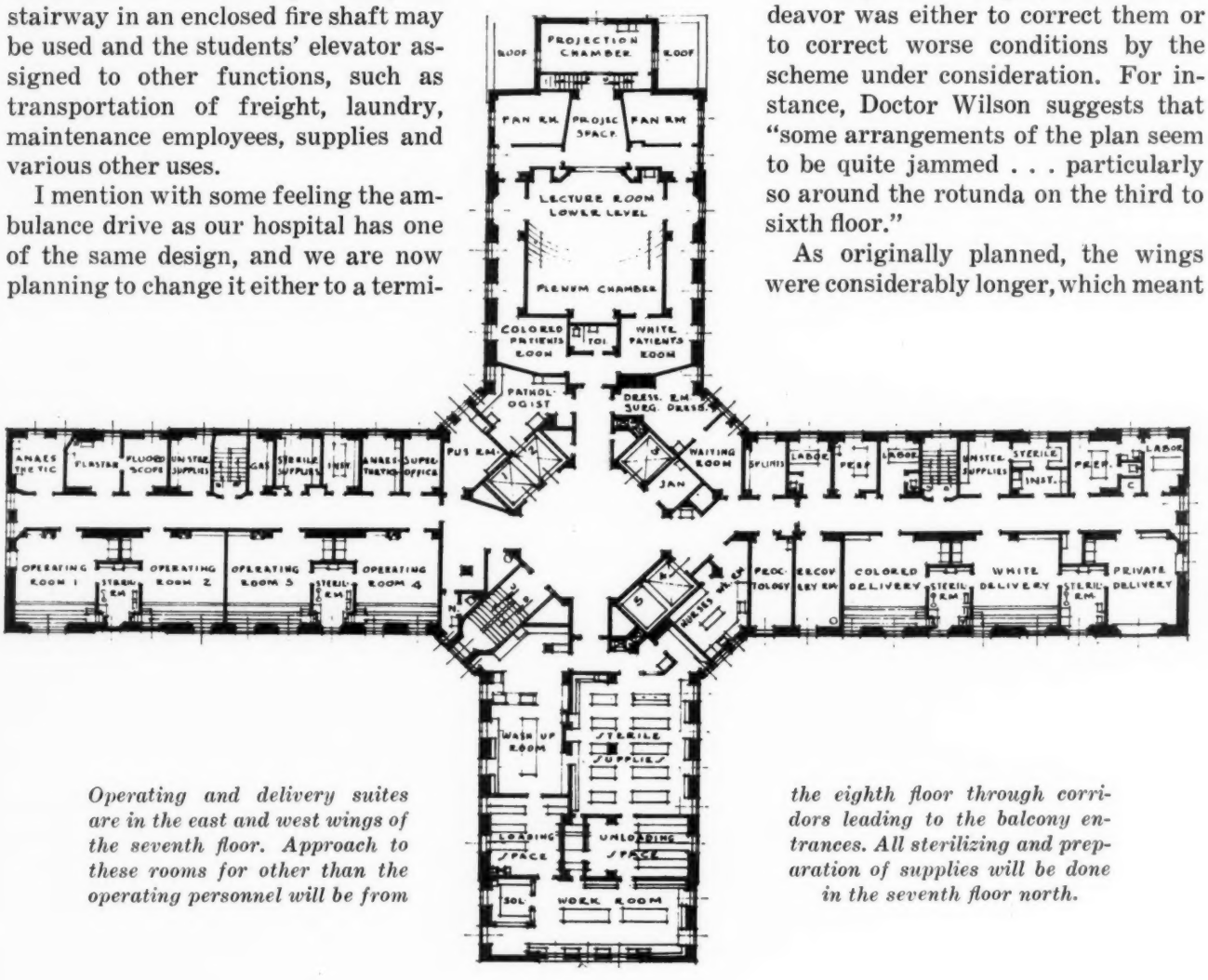
Particular attention has been paid to the segregation of Negro patients, not only in the wards but in the waiting rooms and the delivery room. This is most important in the Southern states.

The central supply room on the seventh floor, which serves the entire building with sterile supplies, should prove most satisfactory.

The cost per cubic foot is quite commendable, and the state of Maryland is to be congratulated on obtaining this modern building with all facilities for scientific medicine at such a low figure.

BOTH gentlemen, writes Doctor Lomas in reply, have been considerate in offering an evaluation on plans of the new University Hospital with the short article and scarcity of plans available. Some points criticized were ones that caused us worry and thought, and our endeavor was either to correct them or to correct worse conditions by the scheme under consideration. For instance, Doctor Wilson suggests that "some arrangements of the plan seem to be quite jammed . . . particularly so around the rotunda on the third to sixth floor."

As originally planned, the wings were considerably longer, which meant



Operating and delivery suites are in the east and west wings of the seventh floor. Approach to these rooms for other than the operating personnel will be from the eighth floor through corridors leading to the balcony entrances. All sterilizing and preparation of supplies will be done in the seventh floor north.

that our total cubage was greater, but we had to cut down the building to fit our purse. Not being willing to cut off bed capacity, it was necessary to cut down service space. Since the building has been erected and since we have actually been able to stand in these spaces, the congestion is not nearly as great as we anticipated.

I appreciate the fact that we have only two utility rooms instead of four. But each room has practically double equipment, which means that each group of nurses from corresponding wards has its own working space and working material. There is, however, but one ice box, one instrument sterilizer, one utensil sterilizer.

Location of Nurses' Station Saves Steps

It is true that there is only one serving room. The freight elevator runs directly to it and it is easily accessible from the four wings. It is placed behind an elevator shaft with definite purpose in order to insulate noise, isolate odors and traffic. It was impossible to give these rooms more space.

If the nurses' station were placed nearer the serving end of the ward, more steps would be necessary to get to the patient. If it were placed nearer the patients, more steps would be necessary to reach the service rooms. We placed them about equidistant, and I feel that we have not deprived the patient of constant supervision by the nursing staff.

As has been said, traffic lanes for patients, visitors, staff, employees and students converge in the rotunda. On a closer inspection of the plans it will be found that this convergence has been broken up considerably. Private patients arrive at the side entrance. After admission they do not go into the corridor, but pass into the private patients' elevator to go to their rooms. Ward patients enter through the eastern wing and, after stopping in their own admitting room, pass into the elevator and to the basement for further preparation before being sent to the wards.

Negro visitors enter through the basement and use a special elevator. Visitors, of course, use the main corridors and their own special elevators. Employees use the freight elevator and enter from the basement as much as possible. Staff and students enter through the north wing and use the staircase for at least the first and second floors; after that, they will be distributed pretty much throughout the various rotunda on the higher floors.

Unfortunately we have not been able to make use of acoustical treatment. The architects have wisely planned for its addition.

The ambulance drive to the emergency department is not ideal. We should like to have arranged a U-shaped driveway with an exit on the north side, but the grade makes this impossible. There is ample space for ambulances to enter, turn and back up to a porte-cochère with their burdens, and be in a position to drive out. I think that this will work satisfactorily.

Of course, no originality is claimed for the cross design. It gives the patients the choicest parts of the building, where ventilation and sunlight are abundant, and leaves the less attractive portion for service and the least attractive for communication. The last calls for constant artificial light, but I fancy there will be considerable circulation of air with four large corridors opening into it and with a fairly lofty staircase.

The fact that an extrance has been arranged with an elevator to the utility rooms is important in my mind because it has given us direct communication with the basement and subbasement for truck service. Elevators 1 and 4 can be used for supplies and ice service in the early morning before either visitors or staff are about, and trucks will not go down corridors and around corners injuring paint and plaster. They will come from the elevator directly to the service room. The side door of elevator 4 has been arranged to give Negro patients complete segregation.

I think Mr. Stevens, on closer inspection, will find that hospital stores are completely shut off from the kitchen and the service entrance. All stores are in a self-contained storeroom. The door showing on the plan is merely for convenience of passage of supplies.

Scrup-Up Sinks Don't Belong in Corridor

The cook has his own ice box for his immediate needs. The rest of the kitchen, including the narrow working corridor leading to the diet kitchen, is all workable space and accommodates serving equipment.

The linen room is necessarily a bit small. This is compensated for by having additional space in the laundry proper.

On the seventh floor, I do not like the idea of surgeon's scrubbing-up sinks being placed in the corridor. If they are to come out of the operating room, they should be placed close by and under cover. Our plan is based on the fact that the surgeons like to be present during the preparation of the patient, and they use their time while scrubbing up in keeping an eye on the general details.

I am grateful to both these gentlemen and I hope that I may show each of them the finished product in the course of the next few months.

Vol. XLII, No. 6

What Is New for H

A COMPLETELY remodeled Century of Progress Exposition was opened in Chicago on May 26 to continue to October 31. Extensive changes, based on last year's experience with its record breaking attendance, have improved the fair in many respects.

The medical and hospital exhibits, particularly, are superior to those shown in 1933. Fifty per cent more area is devoted to medical exhibits than last year and twelve entirely new departments have been included. In addition all exhibits that are making return engagements have been remodeled and most of them have been extensively supplemented.

A new feature of general interest is the series of fifteen authentic villages giving the architecture and spirit of other lands. In addition to the Belgian Village and the Streets of Paris, which were present last year, there are Irish, English, Dutch, Spanish, Italian, Swiss, Tunisian, Mexican, German, Chinese and early American villages and a desert village.

Music will take a prominent place this year with two of the nation's leading symphony orchestras—Chicago and Detroit—giving free concerts.

Many improvements have been made for the comfort and convenience of guests, including the moving of the amusement concessions on to the island, the provision of free toilet facilities, more extensive and brilliant illumination, improved and extended transportation on the grounds, a smoother control of traffic at the entrances and increased restaurant and eating facilities.

The medical section of the Hall of Science will have eight exhibits from foreign countries and thirty American exhibits. New exhibits this year are sponsored by Loyola University, Northwestern University, University of Chicago, University of Michigan, Henry Ford Hospital, Mayo Clinic, American Veterinary Medical Association, Chicago X-Ray Society, the federal government, Chicago Institute of Medicine, Chicago Rapid Transit Medical Department, American Hospital Association, Century of Progress Committee on Diabetes and a committee on cancer.

Three features not in the regular medical section that attracted considerable attention among hospital people last year are to be again displayed. These are: the emergency hospital, the infant incubators and the model operating room. The first is in the Hall of Science and, while not open to the general public, can be inspected by hospital visitors. The infant incubators occupy a separate building and the model operating room is in the Electrical Building.

The commercial exhibits are more extensive than last year and contain a great deal that is of interest to the hospital world.

The accompanying list of commercial and noncommercial exhibits of interest to hospital executives may well serve as a guide to visitors.

Educational Exhibits

Hall of Science (Medical Section)

Allergy exhibit, causes and treatment of hay fever and asthma. . . . American College of Surgeons, progress of surgery and hospitalization. . . . American Dental Association and Chicago Dental Society, progress of dentistry and tooth structure; George Washington's arti-

Hospitals at the World's Fair of 1934

By ALDEN B. MILLS
Managing Editor, The MODERN HOSPITAL

ficial teeth and Paul Revere as a dentist; preventive dentistry. . . . American Hospital Association, progress of hospital care in U. S. . . . American Institute for Deaf-Blind, education of blind by teletactor. . . . American Medical Association, progress of medical practice, care and education and health education of public. . . . American Pharmaceutical Association, progress of pharmacy. . . . American Urological Association, anatomy, function and arrangements of kidney, ureter, urinary bladder and prostate gland. . . . American Veterinary Medical Association, prevention of disease among animals; diseases transmitted by animals to man.

Cancer Exhibit, history, treatment and prevention of cancer. . . . A Century of Progress Committee on Diabetes, history of insulin and its use. . . . Chicago Good Will Industries, value of occupational therapy. . . . Chicago Medical, Dental and Allied Science Women's Association, value of prenatal and postnatal care. . . . Chicago Medical Society, progress in medicine in Chicago. . . . Chicago Municipal Tuberculosis Sanitarium, spread and control of tuberculosis. . . . Chicago Rapid Transit Medical Department, methods of resuscitation and prevention of asphyxial death. . . . Chicago Roentgen Society, historical exhibit of Roentgen and the structure of the human body as revealed by x-ray. . . . Cleveland Clinic Foundation, discovery of x-ray, blood transfusion and glands of internal secretion.

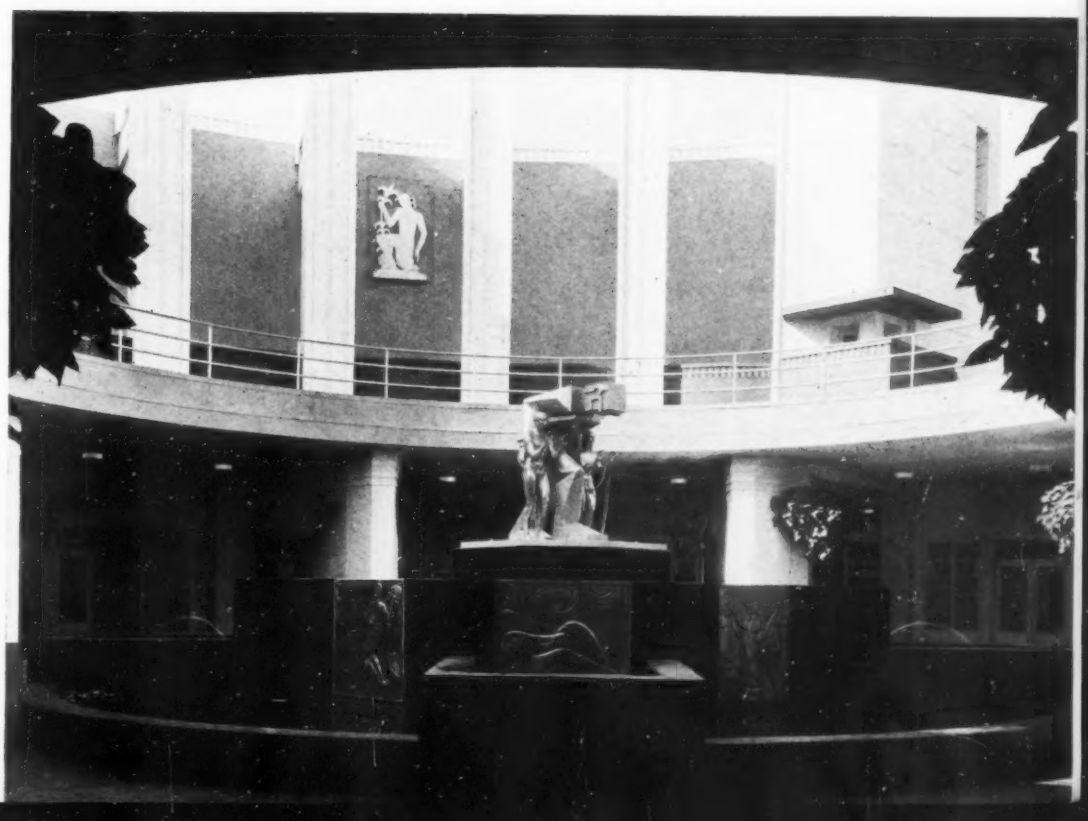
Deutsches Hygiene Museum of Dresden, Germany, working models of human structure and function.

Henry Ford Hospital, Detroit, oxygen therapy in treatment of pneumonia, tannic acid treatment of burns and experimental nephritis. . . . Hot Springs National Park (U. S. Government), value of rest, water and heat therapy.

Italy, lives and work of the fathers of the basic medical sciences—Leonardo da Vinci, Malpighi, Morgagni and others; surgical instruments from ruins of Pompeii. . . . Institute of Medicine of Chicago, medicolegal medicine; contrast of medical examiner system with coroner system. . . . Lille Health Center, plans and photographs of this new center. . . . Loyola University School of Medicine, story of man's development and structure with actual embryos and sections.

Mayo Foundation, transparent man; structure, function, arrangements of thyroid gland, stomach, appendix and sympathetic nervous system. . . . Marquette University and Milwaukee County Hospital, Bright's disease and derangements of the kidneys.

Northwestern University School of Medicine,



At the right is shown a section of the inner court of the Hall of Science. On the opposite page is a view of the Belgian Village.

history of anatomy, eye diseases, diseases of nervous system, stomach and intestine, cancer and hand infections.

Pasteur Institute of Paris, life and work of Pasteur.

Robert Koch Institut of Berlin, life and work of Robert Koch.

University of Chicago, orthopedic surgery for crippled children. . . . University of Illinois, College of Medicine, Dentistry and Animal Husbandry and Illinois State Department of Public Health, causes and prevention of rabies, bleeders' disease, pneumonia, pulmonary tuberculosis, heart disease, amebic dysentery and sleeping sickness. . . . University of Michigan and Simpson Memorial Institute, pernicious anemia; structure, function and derangements of blood and blood-forming organisms. . . . University of Wisconsin, life and work of William Beaumont.

Wellcome Research Institutions of London, tropical medicine, malaria, amebic dysentery, sleeping sickness, animal carriers of human disease, history of British medicine, surgery and nursing and the leading figures in it.

Yale University and St. Louis University, progress in our knowledge of human eggs and the products of internal secretion of the ovary.

Federal Building

U. S. Public Health Service, progress in public health and sanitation, development of Marine Hospital service and research work in various fields.

Electrical Building

Model air conditioned operating room, designed by Schmidt, Garden and Erikson, Chicago.

COMMERCIAL EXHIBITS

Agricultural Building (Food Building)

California Prune and Apricot Growers Assn., prune cultivation and compotes. . . Clorox Chemical Co., bleaching and cleaning liquids. . . . Chr. Hansen's Laboratory, Inc., junket display.

Kraft-Phenix Cheese Corp., various cheeses and malted milk.

Libby, McNeill & Libby, olives, pickles and other Libby products.

Morton Salt Co., various grades of salts and uses in different industries.

National Biscuit Co., shredded wheat and other products. . . . National Pressure Cooker Co., cast aluminum pressure cookers. . . . National Sugar Refining Co. of N. J., various kinds of sugars and their uses.

Quaker Oats Co., puffed rice, puffed wheat, pancakes and scones.

Silex Co., coffee makers. . . . Standard Brands, Inc., history of bread, study of coffee and its effects.

Wilson & Co., process of bacon slicing and complete exhibit of packaging method.

Electrical Building

Century Electric Co., fractional and heavy duty electrical motors. . . . Chicago Flexible Shaft Co., Mixmaster.

Electric Storage Battery Co., storage batteries.

General Electric Co., electrical appliances and machinery and "The House of Magic."

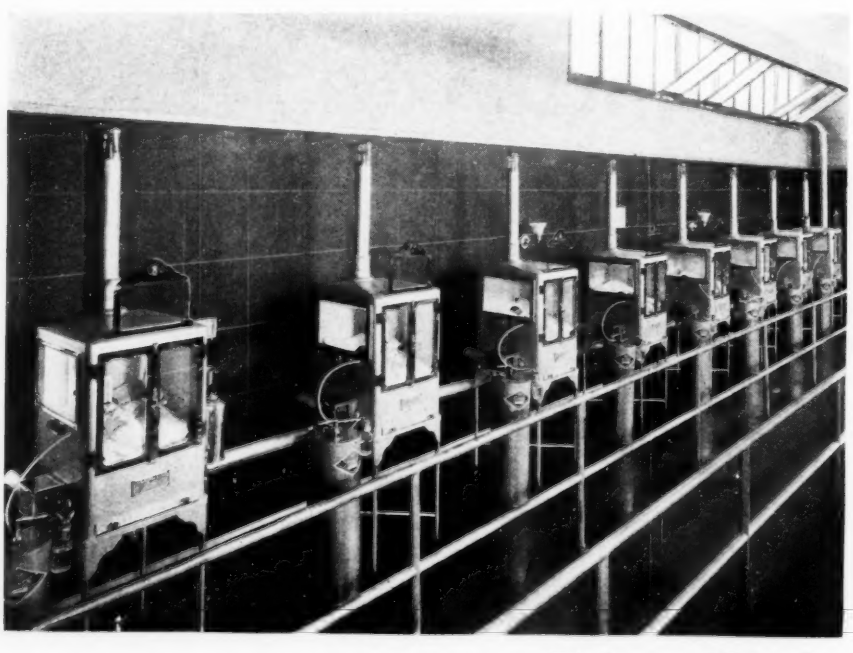
Hoover Co., electrical vacuum cleaners.

Norge Corp., domestic and commercial electric refrigeration.

Radio Corporation of America, radio products, color organ and two theaters.

Singer Sewing Machine Co., sewing machines and electrical accessories. . . . Stewart-Warner Corp., radios and other products.

Waters-Genter Co., Toastmaster. . . . Westinghouse Electric & Mfg. Co., illumination, air conditioning, labor saving machinery, water and steam generation systems and electrotherapy.



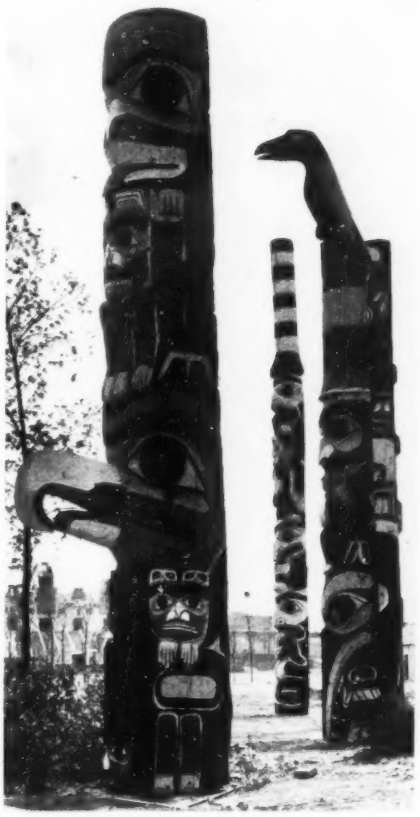
The infant incubator exhibit will interest hospital visitors at the fair. The totem poles on the opposite page are part of the interesting Indian exhibit.

Photos by courtesy of Kaufmann-Fabry

General Exhibits Buildings

Addressograph-Multigraph Corp., addressing, letter writing and office equipment. . . . American Can Co., decorative wastebaskets.

Bristol-Myers Co., manufacture of tooth paste and care of teeth.... Brunswick-Balke-Collender Co.



A. B. Dick Co., development of stencil and duplicating machines. . . . Dictaphone Sales Corp., dictation by dictaphone and transcribing. . . . Diebold Safe & Lock Co., electrical fire and burglarproof safes and tear gas equipment.

Fairbanks, Morse & Co., Diesel engines, electrical machinery, pumping and weighing equipment.

International Business Machines Corp., modern business equipment and demonstration of methods of accounting and control.

Link-Belt Co., display of conveying equipment.

National Cash Register Co., cash registers, accounting and bookkeeping machines; model of plant.

Porcelain Enamel Institute, fusing of porcelain enamel into metal and description of the uses of this process. A joint display by a group of twenty large manufacturers.

Simmons Co., manufacture of mattresses and series of model rooms displaying steel bedroom furniture.

U. S. Plywood Co., Inc., flexwood, plywood, laminated products.

Visible Records Equipment Co., office and recording equipment.

Western Clock Co., historical display of clocks. . . . White Sewing Machine Co., sewing machines.

Hall of Science

Abbott Laboratories, vitamin exhibit and lecture on the subject of vitamins.

Burroughs Wellcome Co. (U. S. A.), Inc., pharmaceutical and biological materials. . . . Burton-Dixie Corp., the corporation's line of mattresses and feathers.

Davol Rubber Co., rubber goods. . . . Dictograph Products Co., Inc., hearing aids, intercommunicating phones, nurses' signals.

Gerber Products Co., strained vegetables for infant feeding and special diets.

Hanovia Chemical & Mfg. Co., therapeutic ultraviolet and infra-red lamps. . . . H. J. Heinz Co., food products. . . . Hild Floor Machine Co., electrical floor scrubbing and waxing machines. . . . Hynson, Westcott & Dunning, Inc., demonstration of uses for mercurochrome antiseptic.

W. E. Long Co. (agents for Proteo Foods, Inc.), diabetic foods and development of baking.

Merck & Co., Inc., drugs and medical supplies. . . . Milk Foundation, Inc., dietary properties in fresh milk. . . . V. Mueller & Co., display of company's surgical instruments.

National Oil Products Co., extraction of vitamin D from fish oils and its use in bread and milk.

Petrolagar Laboratories, Inc., exhibit of Filde's painting, "The Doctor," and life-size reproduction of this picture.

Sherwin-Williams Co., paints and lacquers with their ingredients and sources.... Stanco, Inc., mineral oil.

Union Carbide & Carbon Co., display of the company's various chemical products.

West Disinfecting Co., disinfecting and germ killing preparations. . . . Wisconsin Alumni Research Foundation, exhibit showing the method of irradiating milk by Steenbock process.

Home Planning Hall

Anthracite Institute, coal stokers and grades and types of anthracite coal.

Chicago Faucet Co., shower heads and plumbing. . . . Continental Scale Works, bathroom scales. . . . Crane Co., bathroom fixtures and plumbing including the world's largest shower.... Cudahy Packing Co., cleansing compounds and a marionette show.

Formica Insulation Co., uses for acidproof composition materials.

Hamilton Beach Mfg. Co., electrical appliances.

International Nickel Co., modern kitchen and household appliances of monel metal. . . . Iron Fireman Mfg. Co., automatic stokers.

S. C. Johnson & Son, Inc., wax and polishes.

Chas. Karr Co., study of sleep and exhibit of mattresses.

Miracul Wax Co., wax and polishes.

Pittsburgh Testing Laboratories, tests of rugs,

(Continued on page 64)

The Pharmacy Moves Upstairs

By PAUL D. BROWN
Pharmacist, Methodist Hospital, Indianapolis

THE hospital pharmacist occupies a rather unique position. He stands between the doctor and the patient. He is often called upon to assist the doctor in working out methods of administering remedies to patients.

A good hospital pharmacist must be able to compound physicians' prescriptions correctly and to manufacture simple Pharmacopoeal and National Formulary preparations as the average pharmacist does with his usually limited equipment. Since the hospital pharmacist comes in contact with a large number of physicians from an extensive territory, he has a great variety of problems to solve and it is necessary for him to be prepared to offer advice frequently regarding the older remedies as well as the very newest preparations that are constantly coming to the attention of the medical profession through the efforts of the research departments of modern progressive institutions, particularly those in the field of pharmaceutical chemistry.

The duties of the hospital pharmacist require not only a knowledge of the art of compounding but also rare judgment in anticipating the demands of the physician so as to be able to supply even a rare or obscure drug on the shortest notice without unduly increasing the investment or overhead of the hospital.

Stock keeping in a hospital pharmacy does not differ essentially from stock keeping in any other pharmacy, but it is one of the most important items to be considered, not only from a standpoint of investment and rapid turnover for the benefit of the hospital, but from a standpoint of having fresh stock with which to fill physicians' prescriptions.

In the Methodist Hospital, Indianapolis, has been developed a complete card index system of every item in stock, stating when the item was purchased, the amount purchased and the cost. This serves as a sort of safety valve in making future purchases and helps to keep the stock at a minimum. At the same time stock is kept fresh.

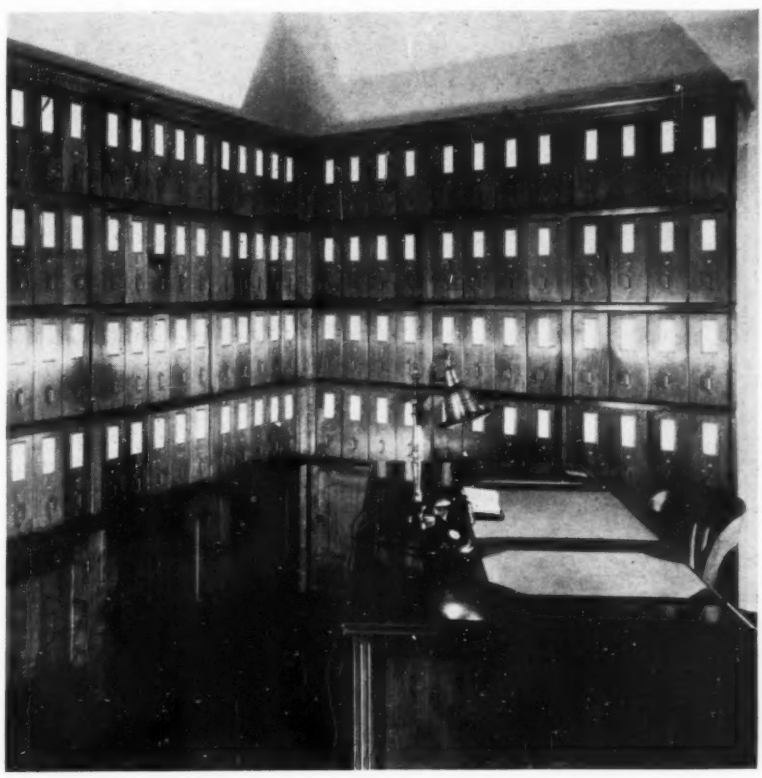
As a matter of economy duplication of prepara-

Three years ago the pharmacy at Methodist Hospital was installed in beautiful new quarters. All features of a public drug store with soda fountain, news counter, sundries and modern pharmacy were provided.

tions is discouraged and with the cooperation of the medical staff much is being accomplished along that line, thereby reducing the stock investment.

In this day of shrewd advertising a preparation is often found parading under several coined names and being sold at prices greatly beyond its real value, but, thanks to the Pharmacopoeia, National Formulary and New and Nonofficial Remedies, most of the preparations of real value are now listed under their correct chemical names or Pharmacopoeal titles. It is our endeavor to diminish the cost to the patient by encouraging the use of the official titles or names, without decreasing in any way the efficacy of the medication.

For the sake of convenience and as a ready reference for the physician, we have prepared a table showing approximate relative costs of many popular proprietary preparations with the corresponding official preparations. This table shows that the official preparation can be purchased at one-half to one-tenth the price asked for the proprietary product.



This view of a section of the Methodist Hospital pharmacy shows the drug filing system that is used.

The hospital pharmacist comes into close contact with nearly all parties affected by hospitalization. He must act in cooperation with the physician and he must advise with and assist in the training of nurses. While he does not come into direct contact with patients, yet he must protect their interest by seeing that they get the prescribed remedy, correctly compounded in the right amount, at the correct price, and without undue delay; and at all times he must bear in mind the interest of the hospital. There is no fixed rule of conduct applying to all hospital pharmacies and a hospital pharmacist who lacks initiative will be unable to serve his institution with credit and distinction.

Within my memory a sort of metamorphosis from the use of crude drugs and complex prescriptions into the era of simple remedies or isolated principles has been witnessed. The scientific medical practitioner of today is unwilling to be satisfied when he has relieved a condition with a more or less complex remedy. He seeks to know what particular agent did it and why. Consequently, we are emerging from the period of so-called "shotgun prescriptions" to the more intelligent or at least more selective method of treatment.

The system of distribution of medicine to the patient is a problem that requires a great deal of thought on the part of the pharmacist. In the Methodist Hospital where there are twenty floors to serve it is necessary to have a rigidly enforced system in order to avoid confusion and delay. Thus, in order to have the more common drugs at hand promptly, there is maintained on each floor a drug cabinet containing approximately one hundred remedies which are issued to all patients free of charge. These drug cabinets are replenished each morning by the pharmacist upon a written and signed requisition from the nurse in charge of drugs on the floor. This nurse must have finished a sixteen weeks' course in pharmacy and must have been in practical service in the pharmacy.

When a physician orders a remedy that is not kept in the floor cabinet, it is necessary for him to write a prescription or for the nurse to make a requisition on the pharmacy. A reasonable charge is then made to the patient. It is always understood that the pharmacist will not compound any remedy without the physician's signature and that all narcotic prescriptions must conform to government requirements. For the further convenience of all persons concerned, the pharmacy maintains an hourly messenger service for the collection and delivery of prescriptions, thereby making it unnecessary for the nurse to leave the floor to obtain drugs.

It seems to have been the idea of hospital officials in the past that the pharmacy department was only

The drug department is situated off the main lobby of the hospital, and includes an up-to-date pharmacy. The department has been a real financial success. Profits are used to help finance the free bed service.

a stock room from which to issue a few already compounded preparations to the nurse for administration to patients. Being of so little importance, the pharmacy was usually situated in some out of the way place, often in the basement, in a poorly lighted and badly ventilated room without sufficient space for equipment or system of any kind. Efficient service in any well regulated hospital requires modern equipment in a favorable location for analytical and pharmaceutical research and experiment.

Many new and modern hospitals are requiring the pharmacist to become a merchant by introducing a drug sundries department and even in some instances a soda fountain and lunch counter. At the Methodist Hospital the drug department has been featured in this way with great success. For years the pharmacy was in the basement. When the present superintendent, Reverend John G. Benson, assumed his duties nearly three years ago, the pharmacy was lifted out of the basement and installed in a beautiful $20,000 drug department off the main lobby. Here all features of a public drug store with soda fountain, news counter and sundries were provided, together with an up-to-date pharmacy.

Even the hospital superintendent had to move his office to give place to a drug department that has become not only a financial success but a social center for friends of patients and members of the staff. Visitors are now assets to the hospital for while they visit the drug department they spend money that helps the hospital.

The drug department, in addition to its service of providing pharmaceuticals and filling prescriptions, has been able to make considerable extra income. During a recent month average daily sales amounted to more than $100 a day. All profit from the drug store is used to help finance the free bed service.

In the light of this new feature the pharmacist takes an important and vital place in the life of the hospital. He is the one person who is always available and whose service may be obtained for any emergency that may arise.

Fever Treatment for Paresis Is Endorsed in New York

The use of artificial fever as a treatment for general paresis is endorsed by the New York State Department of Health. The department recently reported that "for the year ending June 30, 1933, there were 10,935 patients admitted to New York State hospitals for mental disease, of which 1,019, or 9.3 per cent, were suffering from general paresis. As a result of malarial or other therapy the return of over 30 per cent of these patients to their homes has been possible and many of these have been sufficiently restored to continue their previous occupation or to be otherwise gainfully employed."

Clinicopathologic Conferences Are Vital in Small Hospitals

By F. P. McNAMARA, M.D.
Pathologist, Finley Hospital, Dubuque, Iowa

Few 100-bed hospitals have even a fair percentage of necropsies; hence they are in no position to estimate the percentage of error in clinical diagnoses. Regular clinicopathologic conferences will result in better clinical records, more accurate diagnoses and additional necropsies

THE importance of the development of the modern laboratory as a stimulus to better medical practice in 100-bed hospitals has been emphasized in several articles published in The MODERN HOSPITAL.[1] The necessity of a high percentage of necropsies and the utilization of the facts thus obtained in clinicopathologic conferences were pointed out as a prerequisite and as an available means of postgraduate instruction, respectively. This article is essentially a report of what is being accomplished along these lines at Finley Hospital, Dubuque, Iowa. It stresses the importance of the conferences in 100-bed hospitals.

Clinicopathologic conferences are held at Finley Hospital at the same hour each week and are open to all interested physicians. Attendance is purely voluntary. Interesting clinical cases as well as those that have come to necropsy are considered. In the former the clinician gives the history and the results of physical and laboratory examinations. The roentgenologist and pathologist demonstrate the x-ray findings and pathologic specimens. Whenever possible the patient is presented. The case is then open for general discussion and lastly a differential diagnosis is made. Consideration of the case is concluded by a concise account of the particular disease under consideration, emphasis being placed upon a summary of recent literature.

While it is not always possible to reach a diagnosis immediately, the conference often brings out suggestions of lines of study and investigation through which the problems presented may be solved. In other words, team play replaces the efforts of one or two men. The weakness in considering clinical cases only lies in the fact that at times there is disagreement in the diagnosis.

The necropsied cases are considered in a similar manner, but the anatomical diagnosis and the demonstration of specimens are withheld until after the differential diagnosis has been discussed. The advantage of considering necropsied cases is that they give an accurate anatomical diagnosis. Thus correlation of clinical findings with anatomical changes is made possible.

In the accompanying table are listed all the necropsied cases considered at these conferences during the period December 1, 1932, to August 1, 1933. Both clinical and anatomical diagnoses are listed. The table gives a graphic picture of the value of necropsies. When errors made in the interpretation of clinical signs and symptoms are recognized at necropsy they serve to stimulate all concerned to overcome similar mistakes in future patients. Thus clinical judgment and acumen are developed by the conferences. The table also indicates the wealth of material available for study in 100-bed hospitals.

COMPARISON OF CLINICAL AND ANATOMICAL DIAGNOSES AT FINLEY HOSPITAL

Clinical Diagnoses	*Anatomical Diagnoses*
Undetermined (sudden death)	Lobar pneumonia; chronic cholecystitis and cholelithiasis
Acute abdomen; appendicitis?	Acute hemorrhagic pancreatitis; peritonitis; chronic cholecystitis and cholelithiasis
Peritonitis	
Undetermined (sudden death)	Arteriosclerotic occlusion of the left coronary orifice; chronic myocarditis and atrophy of the left ventricle; chronic cholecystitis and cholelithiasis

Clinical Diagnoses	*Anatomical Diagnoses*
Question of influenzal pneumonia or diphtheria with bronchial pnuemonia	Acute necrotizing tracheitis; influenzal pneumonia
Left inguinal hernia; postoperative cystitis and pyelitis	Hypertrophied prostate; diverticulum of the bladder; cystitis; bilateral pyonephrosis with abscess; bronchopneumonia; chronic cholecystitis and cholelithiasis; hernia scar
Acute appendicitis; pulmonary embolism	Acute appendicitis; left femoral thrombosis; pulmonary infarcts; pulmonary embolism
Lobar pneumonia; empyema	Acute fibrinopurulent pericarditis; post pneumonic lung abscess; organizing pleurisy
Pernicious anemia; jaundice	Chronic cholecystitis and cholelithiasis; carcinoma of gall bladder; extension to liver and portal lymph nodes; jaundice; secondary anemia
Chronic cholecystitis; appendicitis; postoperative coronary thrombosis	Chronic cholecystitis; appendicitis; postoperative coronary thrombosis
Undetermined	Extra and subdural hemorrhages (new born)
Lobar pneumonia	Necrotizing lobar pneumonia with abscess formation
Ruptured abdominal viscera; peritonitis (automobile accident)	Rupture of the duodenum; retroperitoneal cellulitis; perinephritic abscess
Acute appendicitis with peritonitis	Acute appendicitis with peritonitis
Injury to abdominal viscera (automobile accident)	Perforation of colon with large encapsulated collection of fecal detritus; generalized peritonitis
Found dead	Coronary thrombosis; cardiac infarction; rupture of the left ventricle; pericardial hemorrhage
Question of cerebral gumma or tumor	Spongioblastoma of brain
Question of mesenteric thrombosis or acute hemorrhagic pancreatitis	Strangulation of the intestine through aperture in the mesentery; intestinal gangrene
Diabetes and question of brain pathology	Endothelioma of the brain; calcification of the aortic cusps; cardiac hypertrophy
Peritonitis with umbilical fistula	Tuberculous salpingitis; peritonitis; chronic and acute appendicitis with generalized peritonitis; umbilical fistula
Epileptiform convulsions of unknown etiology	Chronic mitral endocarditis; infarcts of each kidney; chronic and acute cardiac dilatation; pachymeningitis; edema of the brain
Bronchopneumonia	Chronic and subacute mitral and aortic endocarditis; cardiac dilatation and hypertrophy; infarcts of each kidney; bilateral influenzal pneumonia
Hypertrophied prostate; arteriosclerosis (sudden death during anesthesia)	Chronic aortic endocarditis with calcification; chronic myocarditis; acute cardiac dilatation; hypertrophied prostate; dilatation of urinary bladder; cystitis; arteriosclerosis
Infected laceration of hand; delirium tremens; coronary thrombosis	Infected laceration of hand; multiple infected pulmonary infarcts with abscess formation; acute pleurisy; acute hemorrhagic gastritis (alcohol)
Syphilitic aortitis; aneurysm of the innominate artery; osteo-arthritis of each sterneclavicular joint	Syphilitic meso-aortitis; aneurysm of the innominate artery; canalized thrombi of the innominate, right subclavian and carotid arteries; occlusion of the left carotid artery; cerebral syphilis; fibrous orchitis and osteo-arthritis of sternoclavicular joints
Carcinoma of bronchus; right pleural effusion	Carcinoma of bronchus; extension to right visceral and parietal pleurae; metastases to hilic lymph nodes, diaphragm, peritoneum, liver and heart; right pleural effusion
Diabetes; question of pulmonary tuberculosis	Lung abscess; multiple abscesses of each kidney; diabetes
Hypertrophied prostate with urinary infection	Carcinoma of bladder; acute necrotizing cystitis; acute pyelonephritis with abscess
Chronic glomerular nephritis with edema; inguinal hernia	Generalized peritonitis; subacute glomerular nephritis with edema; right inguinal hernia
Acute appendicitis with peritonitis	Acute appendicitis with streptococcic peritonitis
Mitral and tricuspid endocarditis; infarcts of lungs, kidneys and brain	Chronic aortic endocarditis with calcification; chronic mitral endocarditis; cardiac dilatation and hypertrophy; infarcts of lungs, spleen, kidneys and brain
Undetermined; a question of meningitis or brain abscess	Acute tonsillitis; thrombosis of jugular vein; infected infarct of the liver with massive peritoneal hemorrhage
Mitral stenosis with decompensation; coronary thrombosis	Chronic mitral endocarditis; chronic myocarditis; chronic and acute cardiac dilatation; infarcts of spleen and kidneys; coronary thrombosis

The following case, which was considered at three different conferences, illustrates better than generalizations the value of this method of study.

A man of fifty-two years was sent to Sunny Crest Sanatorium, Dubuque, Iowa, with symptoms that had suggested a probable diagnosis of tuberculosis to his physician. The patient's past history showed that five years previously a cholecystectomy was done. At the operation a small tumor was removed from the liver and the surgeon suspected that he was dealing with a carcinoma of the gall bladder. The pathologic diagnosis, however, was chronic cholecystitis and hemangioma of the liver. At the sanatorium no tubercle bacilli were demonstrable in the sputum. An x-ray examination showed an unusual shadow in the lower half of the right lung.

What the Necropsy Showed

The director of the sanatorium, in consultation with the roentgenologist at Finley Hospital, injected lipiodol in the bronchi, but this did not clarify the diagnosis. The patient was then demonstrated before one of the clinicopathologic conferences and it was noted that some of the lipiodol had lodged at the bifurcation of one of the right main bronchi. Further study was suggested to determine the reason for this situation, and a bronchoscopic examination was recommended. The bronchoscopist made a diagnosis of bronchogenic carcinoma and did a biopsy. His diagnosis was confirmed by microscopic examination of the tissue.

A second report of the case was made at another conference. During the discussion the surgeon who had done the cholecystectomy several years previously questioned the origin of the carcinoma. He was of the opinion that the carcinoma was primary in the gall bladder in spite of the previous pathologic report. Except for this element of doubt, a clinical diagnosis was made through the combined efforts of the members present. Subsequently the patient failed gradually, developed signs of increasing fluid in the right chest and died five months after the onset of symptoms. The final clinical diagnosis was bronchogenic carcinoma with extension to the right lung; right pleural effusion.

At necropsy the principal clinical diagnoses were verified. In addition it was found that the carcinoma had spread through the peribronchial lymphatics and had invaded the parietal and visceral pleurae which formed thick white layers throughout the right thoracic cavity. The neoplasm had involved the pericardium and had spread over the surface of the heart. Metastases were also found in the diaphragm, the liver and the peritoneal cavity. The site of the cholecystectomy was normal. A benign hemangioma was found in the liver.

Thus the necropsy confirmed the clinical diagnoses and verified the diagnoses made five years previously, besides adding new facts. It gave visual instruction in one of the highly important characteristics of carcinoma, that is, spreading from the site of origin by extension and by lymphatic or blood stream metastases. Too often this distinctive characteristic is forgotten by clinicians. How many times are the lungs, the bones and the liver thoroughly investigated for possible metastases in patients suspected of having carcinoma? Such a procedure if done routinely may save many futile operations.

In the review of the literature on pulmonary neoplasms, which ended the conference, the following were the main features considered: the apparent increase in their incidence in the last decade; the rôle of infections and irritants, especially warfare gases, and fumes of gasoline, asphalt and tobacco, as possible etiologic factors; the insidious onset resembling that of tuberculosis but occurring in elderly persons; the value of the x-ray in diagnosis and treatment, and the feasibility of surgery. Furthermore, in answer to a question as to whether we were not dealing with a primary endothelioma of the pleura, Robertson's[2] work on these tumors was cited. His conclusion was that all so-called endotheliomas of the pleura were actually carcinomas secondary to some other focus usually in the lung. This case substantiates Robertson's conclusion. The possibility of producing a primary carcinoma of a bronchus by the application of irritants was suggested to some of the members present as a research problem.

A High Percentage of Error

The advantages of considering all cases in the manner described are so obvious that they need not be discussed. However, the importance of such studies as a means of improving diagnosis in smaller hospitals should be emphasized.

For many years the more progressive hospitals, especially university hospitals, have utilized clinicopathologic conferences as a valuable method of instruction for medical students, interns, resident staffs and visiting staffs. These hospitals usually had a high percentage of necropsies and the conferences were a logical method of presenting the necropsy findings before groups. The value of the conferences was almost in direct proportion to the number of necropsies and the realization of this fact stimulated all concerned to obtain more and more necropsies. Their importance was recognized as a means of advancing the science of medicine. In fact, it has become axiomatic that the percentage of necropsies is one of the best indexes of medical efficiency in a hospital.

In my opinion few 100-bed hospitals in this country have even a fair percentage of necropsies, and judged by this yardstick have only a fair if not actually a low index of medical efficiency. Some small hospital authorities may resent such a statement but without a high percentage of necropsies, they are in no position to estimate the percentage of error in clinical diagnoses in their hospitals. Such knowledge is vital if improvement is to occur.

The failure to analyze clinical results and to evaluate the efficiency of each member of the staff is a functional weakness of many smaller hospitals. Some staff members therefore develop a complacent attitude which takes for granted that clinical diagnoses are always right simply because they are written on a chart, regardless of the evidence presented to substantiate them. A few trips to the necropsy table will jolt such persons out of their complacency.

Published series comparing clinical and anatomical diagnoses have shown a high percentage of error. Most of the published series have come from teaching hospitals and it may be assumed that in such institutions diagnoses are more nearly perfect than in smaller hospitals. Probably the majority of smaller hospitals have a higher percentage of error than teaching institutions. An even more deplorable fact is that they apparently fail to realize it and therefore no effective efforts are made to overcome the condition, which undoubtedly explains some of the present day criticisms of the medical profession.

The smaller hospitals care for at least one-fourth of the patients in this country, and they have an obligation to render the best possible medical care to their patients. In other words, clinical diagnoses must be as nearly perfect as is humanly possible. Errors probably will continue to occur, but unless they are detected no measures will be taken to prevent their recurrence. The necropsy is essentially a fact finding procedure and is of the greatest importance in evaluating the character of the medical services rendered by a hospital. Therefore, every hospital, large and small, must strive constantly to increase the percentage of necropsies. When the patient's signs and symptoms are correlated with the anatomical changes in clinicopathologic conferences, clinical diagnosis and judgment cannot fail to improve. For that reason every small hospital should develop this type of conference to its fullest possibilities.

There is a wealth of material available for study in 100-bed hospitals. The clinicopathologic conference is the most effective method of utilizing that material for postgraduate instruction in 100-bed hospitals. The full success of the conferences depends largely upon the percentage of necropsies. The conferences at Finley Hospital have been highly successful and have resulted in better clinical records, more accurate diagnoses and a higher percentage of necropsies. They have also increased the interest of the medical staff in current literature. In brief, these conferences have enhanced the scientific atmosphere of the hospital. They are a practical method of elevating the standard of medical practice in the 100-bed hospital.*

Bibliography

[1] McNamara, F. P., The Development of the Small Hospital Laboratory, The MODERN HOSPITAL, Sept., 1923, p. 233; Oct., 1923, p. 354; Developing the Small Hospital Museum, ibid., May, 1925, p. 455; Effective Laboratory Service in the 100-Bed Hospital, ibid., April, 1930, p. 89; Ten Years of Laboratory Progress in a 100-Bed Hospital, ibid., Feb., 1932, p. 55.

[2] Robertson, H. E., "Endothelioma" of the Pleura, Journal of Cancer Research, vol. 8, Oct., 1924, p. 317.

*The author wishes to acknowledge his indebtedness to Dr. J. C. Painter, Dr. E. R. Young and Dr. H. E. Thompson of the Finley Hospital medical staff for permission to use their clinical records.

What Is New for Hospitals at the World's Fair of 1934

(Continued from page 57)

furniture, paints, household utilities and other articles.

Servel Sales, Inc., gas refrigeration and air conditioning.

Travel and Transport Building

American-La France & Foamite Corp., newest fire fighting apparatus.

Otis Elevator Co., world's largest escalator.

Safety Glass Mfgrs. Assn., protection by safety glass.

Yale & Towne Mfg. Co., history and evolution of locks.

Special Installations or Special Buildings

American Rolling Mill Co., "Mayflower House" entirely of steel with enamel exterior. . . . Armour & Co., meat packing and distributing. . . . American Radiator & Standard Sanitary Corp., heating, plumbing, air conditioning.

Brick Mfgrs. Assn., exhibit house of reenforced brick masonry.

General Motors Co., complete automobile assembly line and display of motor and refrigerating products.

Johns-Manville, control of fire, temperature, motion and sound.

Kohler Co., modern plumbing and heating equipment.

Masonite Corp., use of masonite in building.

National Lumber Mfgrs. Assn., exhibit house showing new uses of lumber. . . . National Terrazzo & Mosaic Assn., Inc., terrazzo esplanade and pools leading to Planetarium.

Otis Elevator Co., equipment and exhibit in Skyride. . . . Owens-Illinois Glass Co., building of glass with exhibit of manufacture and products.

Rostone, Inc., exhibit house showing use of new limestone slab.

Southern Cypress Mfgrs. Assn., exhibit house of cypress.

Swift & Co., preparation and distribution of meat, and Chicago Symphony Orchestra.

Let's Lower Appendicitis Mortality*

During the last five years Philadelphia has conducted a campaign of prophylactic surgery that would, if projected throughout the United States and continued over a period of ten years, do away with the problem of the increasingly high mortality of spreading peritonitis. Doctor Bower explains how the superintendent can help with such a program

By JOHN O. BOWER, M.D.
Clinical Professor of Surgery, Temple University, Philadelphia

BEFORE the problem of the increasingly high mortality of acute appendicitis in the United States can be solved, two things must be done: (1) the public must be taught the dangers of delaying hospitalization and of giving laxatives in acute abdominal pain and (2) the management of spreading peritonitis complicating appendicitis must be profoundly studied by surgeons and their associates.

That there are direct relationships between mortality and the time that elapses from the onset of symptoms to operation and also between the administration of laxatives and mortality, is shown in Tables I and II.

If a program of prophylactic surgery similar to the one conducted in Philadelphia during the last five years could be projected throughout the United States and continued over a period of ten years, there would be no problem to solve. Immediate operation on patients who had not received laxatives would eradicate spreading peritonitis complicating appendicitis, and deaths from it would become as rare as those from typhoid fever.

While it is unlikely that an intensive campaign will be waged throughout the United States in the near future, the Medical Society of the State of Pennsylvania has taken the lead and the president, Dr. Donald Guthrie, has appointed a committee on acute appendicitis to develop plans for a statewide campaign. The board of directors of the state society authorized publication in the April issue of the *Pennsylvania Medical Journal* of a page of stickers for family physicians to send to their patients. An example of these stickers is shown.

The city of Cincinnati is conducting a campaign similar to the one in Philadelphia. This campaign of prophylactic surgery will spread gradually. If a member of the staff of some hospital, preferably a surgeon who is sufficiently interested, will plan a city campaign and carry it through, with a follow-up each year, that city will have made its contribution. Such an individual should be vitally interested in the campaign to reduce the mortality in acute appendicitis. He should be experienced in clinical research and should be willing to supervise the details incident to statistical studies. If a man with the foregoing qualifications is not available, a medical man who has enthusiasm and a desire to obtain facts should be enlisted. He should be chosen without regard to rank or preference and he should be impressed with the fact that the success or failure of the plan depends upon him.

WARNING

In the presence of abdominal pain:
Never give a laxative or physic.
Give nothing by mouth.
Call your family doctor.

Abdominal pain, cramps or soreness that lasts four hours is usually serious.

This warning is published by the Medical Society of Pennsylvania.

Until such a man is discovered, the board of trustees of the average hospital can help by authorizing the superintendent to develop ways and means to enhance the reputation of his hospital by reducing appendicitis mortality.

Much progress in this direction could be made if the superintendent of each hospital in the United

*This article is one of the Hospital and the Medical Staff series, designed to ensure better teamwork in the hospital through a fuller understanding of the interrelated problems of the medical staff and the administration. The first article of the series appeared in January, 1933.

States had the authority to plan and conduct a campaign against spreading peritonitis. This would entail making a survey, placing the results before the staff and reporting the results of the survey to physicians who send patients to the hospital, informing these physicians that a campaign for the reduction in mortality is being carried on and that sticker warnings will be sent them to send to their patients. Still greater progress could

TABLE I—DECREASE IN THE NUMBER OF PERITONITIS CASES AND LOWERED MORTALITY WITH EARLIER HOSPITALIZATION

Year	Cases	% Mortality	Av. Time Onset Sympt. & Op.	Clean Cases	Cases Spread. Perit.	Cases Local Perit.
1928	5,121	5.97	61.17	2,921	698	1,502
1930	3,095	4.81	49.36	1,998	472	625
1931	3,142	4.39	53.69	2,033	491	618
1932	3,546	3.44	49.45	2,517	457	572
Total	14,904	4.79	54.35	9,469	2,118	3,317

TABLE II—RELATION BETWEEN ADMINISTRATION OF LAXATIVES AND MORTALITY

Year	Laxative Hist. No Rec.	Deaths	Laxative Hist. Yes Rec.	Deaths	Single Laxatives Rec.	Deaths	Multiple Laxatives Rec.	Deaths	Kind Not Mentioned Rec.	Deaths
1930	397	5	915	77	567	47	88	15	260	15
1931	388	2	1,058	69	723	32	100	12	235	25
1932	508	5	1,118	56	697	35	174	13	247	8
Total	1,293	12	3,091	202	1,987	114	362	40	742	48

Per cent of deaths: laxative taken, 6.6; no laxative taken, 0.9; single laxative taken, 5.9; multiple laxative taken, 11.1.

be made if resident physicians and nurses were instructed to cooperate, particularly in careful preparation of clinical charts.

The superintendent of the average hospital keeps his job primarily because he is a good business man. If he can satisfy the board of trustees of the hospital on monetary matters and is diplomatic in his relations with the staff, he will probably remain a long time. There is another aspect of hospital management, however, that should be the superintendent's job, and that is the hospital's mortality. The superintendent should be given authority by the board to see that it is satisfactorily low.

On every hospital staff are internists and surgeons who, while primarily interested in the welfare of their patients, are also interested in the development of some new phase in the management or treatment of disease. Naturally, they hope to improve their professional standing by reporting the results of their observations and treatment. This is a good thing for both individual and hospital. However, for every man on the staff who does such work, there are at least ten who are not sufficiently interested to follow up cases and accurately to report results. The mortality of cases treated by the second group, or the mortality figures of the hospital, will, of course, be greater than that of the cases treated by progressive medical men, but the board should know that the hospital mortality is what the hospital is judged by.

If the superintendent was directed to include in his report the comparative mortality of acute appendicitis for two previous years, and other conditions of equal importance, such as maternal mortality, it would help solve a number of problems. For instance: Why was the appendicitis mortality higher this year than last? How many catastrophes were there? How many perforations? How many cases had a local peritonitis? How many cases had a spreading peritonitis? And, what is most important, who managed the cases of spreading peritonitis and what was the mortality?

Instruction of interns in hospitals is improving. Clinical records of twenty-eight Philadelphia hospitals show more accurate and complete histories each year since the first survey in 1928 but there is still opportunity for further improvement. Interns should be instructed that the date of the month, rather than the day of the week, should be used, and special note should be made of the exact time of onset of symptoms, whether a.m. or p.m. Definite notation should be made regarding the administration of laxatives. The tendency is for the resident not to mention anything about laxatives if they have not been given. A definite statement in this regard is important. Gross findings at operation, especially the presence or absence of a perforation, daily progress notes, date of loosening as well as of removal of drains, are some of the points that are frequently forgotten.

The superintendent or the chief surgical intern should also confer with residents about the difference in management of patients suffering from spreading peritonitis following a ruptured appendix and those whose peritonitis developed from a gonococcic salpingitis. Residents frequently fail to appreciate the difference and, when changing from the gynecological to the surgical service, they commit errors that were not considered such on the former service.

Nurses Need Special Instruction

Finally, the superintendent should have a conference with the director of nurses, her associates and the floor supervisors to emphasize this difference in the management of patients suffering with spreading peritonitis. Supervisors of undergraduate nurses who show a special interest in this type of case should be encouraged to make a special study. It is impossible for the average nurse to obtain even a working knowledge of how to nurse these patients because a sufficient number are not admitted to the hospital.

Special ward class conferences arranged by the supervisors, in which the chief resident participates, will help increase the knowledge of the average nurse. Specific instructions should be given

regarding the use and emphasis laid on the importance of a continuous surveillance of the venoclysis or hypoclysis or other methods used to maintain water and caloric balance; accurate notations of the amount of urine excreted; changes in the patient's condition, especially mental attitude; presence or absence of distention, and the passage of flatus. In addition, attention should be called to the importance of maintaining the Fowler position, rotating the patient to the right when bathing, especially during the first forty-eight hours.

Drastic Changes Needed in Case Management

Spreading peritonitis causes about 83 per cent of the deaths of patients operated upon for appendicitis. The operative mortality of 2,118 cases of spreading peritonitis in Philadelphia from 1928 to 1932, inclusive, was 27.47 per cent. Philadelphia had the second lowest mortality rate of twenty-six cities in the United States with a population of 300,000 or over. What must the mortality of spreading peritonitis be in cities with a higher death rate? Something must be done with this complication that causes the death of at least one out of every four patients admitted to hospitals.

In Philadelphia mortality has been reduced 11.8 per cent over a period of five years. This reduction is due in part to the diminished time between onset of symptoms and operation and the less frequent administrations of laxatives, resulting in fewer cases of spreading peritonitis. There is evidence, however, to show that in some hospitals the best men on the surgical services are not guiding the destinies of patients admitted with spreading peritonitis. Table III indicates how the surgeons of Philadelphia have improved their management.

Because of the persistency of the high operative mortality of spreading peritonitis (Table IV), drastic changes must be made in management before a substantial decrease in mortality can be expected. This can be brought about by placing the management of all cases of spreading peritonitis in the hands of the chief of service.

At the present time the majority of cases of spreading peritonitis are admitted to ward beds. In Philadelphia in 1933, the percentage was 76. Usually these patients are admitted at night or when the chief is not in the hospital. If at night, frequently men young in experience determine what shall be done. Unless a physician has had at least ten years' experience in observing these cases, it is impossible for him to visualize what is taking place in the patient's abdomen or to estimate the probable reaction of the patient to the procedure he contemplates. If he cannot do this before operation, the possibility of his doing something wrong at operation is greatly increased.

A fact that the surgeons of America and of every other country must face is that the successful management of patients suffering with spreading peritonitis is one of their most difficult problems. Some surgeons have spent their lives trying to cope with it successfully, but have failed. At varying intervals the majority feel that at last they have acquired sufficient wisdom to manage the average case successfully, when, without warning, they fail again.

One of the factors contributing to our present difficulties is that as a man improves in surgical experience, his practice becomes more lucrative. This is as it should be but, unfortunately, it means that this surgeon's practice includes fewer and fewer cases of spreading peritonitis. The higher we go in the social scale, the less the delay there is in hospitalization and the fewer are the laxatives administered. This surgeon, if asked about his mortality, will say that he has not had a death in a long time; his associates have managed the virulent cases of spreading peritonitis in the wards.

How many cases of spreading peritonitis does the average associate see in the first five years of his experience? During his surgical internship he will observe approximately five. If he becomes associated on a rotating surgical service as second or third assistant in a 200-bed hospital, he will see approximately nine or ten cases each year. But how many of these has the chief of service managed? During his early years, the associate should spend his time in differentiating between virulent appendicitis and early spreading peritonitis. To do this, the patient must be followed through from receiving ward to operating room to postoperative ward. He must be seen at least twice daily, making accurate notations of changes in physical signs. In this way he will gradually learn what not to do as well as what to do. He will learn more from the mistakes than from the victories of others, especially if the mistakes come to the postmortem room.

TABLE III—DIMINISHED NUMBER OF CASES OF SPREADING PERITONITIS

Year	*Cases Append.*	*Cases Spread. Perit.*	*% Cases Admitted*	*Deaths Spread. Perit.*	*Mortality*
1928-29	5,121	698	13.54	237	33.95
1930	3,095	472	15.25	124	26.25
1931	3,142	491	15.62	120	24.44
1932	3,546	457	12.89	101	22.1
Total	14,904	2,118	14.21	582	27.47

TABLE IV—MORTALITY IN SPREADING PERITONITIS
(Comparison of Two Groups of Hospitals)

Group	*No. Hosp.*	*Spread. Perit.*	*Append. Removed*	*Mort.*	*Av. Time—Onset Sympt. to Op.* *Lived*	*Died*
1	8	155	54	36.7	57.62	55.54
2	20	317	23	21.13	59.04	81.96
Total	28	472	77	26.27	58.33	68.75

Someone Has Asked—

Should the Hospital Furnish Quarters for Its Help?

Local conditions surrounding an institution vary so that it is impossible to offer any generally applicable solution of this problem. For many years institutions have furnished living quarters for their janitorial, attendant and mechanical help. Nurses and resident physicians are often housed by the hospital.

Some outstanding institutions, however, have placed all professional and nonmedical personnel on a day basis. In some cases no meals are served to those employed about the hospital. In a certain municipal institution in a Western city no housing facilities are provided for graduate nurses, janitors or other help. The hospital budget, however, provides a sufficient sum over and above the basic salary to compensate each worker for the institution's failure to provide board and room. An institution situated in a residential or isolated portion of the city or one lacking proper transportation facilities would find this plan impractical.

When, however, it is possible to require all or at least the majority of workers to live outside the hospital, its administration is greatly simplified. Stealing, drunkenness and loitering on the part of those off duty are obviated when living quarters in the hospital are not provided. It is possible that in the long run the institution gains in a financial way by the adoption of this policy. In the case of fire or other catastrophe, on the other hand, it is necessary to have available a sufficient number of able-bodied persons to ensure the safe removal of patients.

Some persons believe that hospital employees can be housed and fed more cheaply in the institution than elsewhere and hence that the hospital can save money by avoiding the payment of the profit made by others who provide such facilities. There is, of course, much to be said in favor of this opinion. A well run institution, particularly one that has already provided suitable living quarters for its help, should be able to furnish room and board at a rate considerably lower than that asked by a private individual.

In planning new hospitals, boards of trustees should consider seriously omitting the construction of expensive quarters for graduate nurses and also for petty help. There is a strong trend toward engaging employees on a per diem basis and this is particularly true among the dietetic, janitorial, mechanical and technical personnel.

How Should Consultations on Ward Patients Be Conducted?

In an ideal consultation, the physician in charge and one or more of his specialty advisers are present at the bedside of the patient. Too frequently to obtain a specialist's opinion is a matter of lengthy correspondence, letters often being received too late to be of real service to the patient. The patient's interests are best served when the surgeon and the clinician are each required to prove their diagnostic points to the satisfaction of the other. Mere expression of a casual opinion as to the presence or absence of indications for an operation is of little aid to the physician in charge. In some institutions no consultation may be answered except by a member of the major staff. This policy is followed because the assistants on the surgical or medical services, while frequently young men of skill, have had less experience than their chiefs. No opinion can be too carefully considered when the life of a patient may be at stake.

In other institutions two types of consultation request forms are used. A colored form designates that only a chief may answer the consultation, while a white form implies that no emergency exists and a routine opinion only is asked. There is much to commend such a system. Consultations are often too lightly considered by the consultant whose opinion is sought. In the first place, specialty opinions should be prompt, concise and well considered. To advise any operative or therapeutic procedure and then to fail to return later to learn of its efficacy is a mark of deplorable indifference to the welfare of the patient.

A central point for the reception of consultation requests and a specified officer who shall transmit by telephone information as to the presence of an emergency request are prime requisites for the success of any system. Too often valuable time is lost while an opinion is being sought from the consultant.

Whatever system is adopted, the presence at the bedside of the patient of both the physician in charge and his consultant is highly desirable. Consultation on ward patients should be no less thorough and prompt than that on patients from whom the consultant will expect a fee. The hospital administrator should demand prompt response to consultation requests and with him should rest largely the responsibility of providing the means by which this is accomplished.

May Hospitals Supply Liquor Without a License?

Hospitals that make a fixed charge for treatment during a specified period, such charge to include treatment, subsistence, medicines, do not incur liability to special tax by reason of the fact that they occasionally supply distilled spirits as medicines or alcohol for baths, even though compounded, provided no specific or additional charge is made for the spirits so furnished and the charge to the patient remains the same regardless of the amount or character of medicines, including spirits, that are supplied, these spirits not being supplied under conditions constituting a sale thereof within the meaning of Section 3244, R. S.

A hospital serving wines and liquors to patients on prescriptions, making an additional or specific charge for the wines or spirits so furnished, over and above the specific charge for treatment, is required to pay a special tax of $25 as retail liquor dealer, even though the alcoholic liquor thus supplied be prescribed as a medicine only and so used.

The tax is prorated over the tax year ending June 30 of each year, and should be paid to the collector of internal revenue of the district, who issues a tax stamp in evidence of the payment.

The foregoing information has been transmitted by the Commissioner of Industrial Alcohol of the U. S. Treasury Department.

If you have any questions to ask, the editor will be glad to discuss these in a forthcoming issue

Planning the Convalescent Home for Children

By N. THOMAS SAXL, M.D.
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STRICTLY speaking, a convalescent patient is one who has passed the acute stage of his illness or operation but is as yet unable to resume normal living since complete recovery has not taken place.

Many hospitals are filled with patients who have passed the acute stage of illness. These patients belong in a convalescent home and not in a hospital. They require no further hospital medical attention and they are occupying beds that might be utilized for patients who are acutely ill. This article will consider and make recommendations for the convalescent home with particular regard to convalescent children.

Age grouping of children in the convalescent home is most desirable because the personnel of the institution can be trained to a technique for handling children of a certain age level. Besides, different ages are more susceptible to different types of contagion and the danger is minimized where only one group need be considered. Children are usually grouped as follows: infants up to two years; preschool, two to six years; school, six to twelve years, and adolescence, twelve to fourteen years. Fourteen years is the age limit.

The patient who has passed the acute stage of his illness should be transferred to a convalescent home where individual care can be carried through until he is ready to resume normal living. Doctor Saxl makes recommendations for the home for convalescent children, taking into consideration the age grouping of children, admitting office procedures, the entire physical plant and the personnel

Central Admitting Office Has Advantages

Before making recommendations for the location and construction of a convalescent home for children, its administrative staff and other matters, I should like to discuss the problem of admittance. The importance of the admitting office cannot be overestimated. Experience has shown that many cases are presented at the admission office of the home for convalescent care that do not require such attention, either because the patients are too sick or too well or because they have contagious or communicable diseases.

Under the present system of admittance, patients are not seen by any medical examiner connected with the home until after they arrive. It does not necessarily follow, however, that a patient who has been in a hospital or under the supervision of a physician requires convalescent care. Then, too, social workers have far too much responsibility and the medical profession has not enough in the matter of referring patients to convalescent homes. As a result, cases are admitted to these homes without adequate and pertinent medical histories.

Many of the problems of the convalescent home could be solved if there were established in the city a central admitting office to serve a number of homes. By this cooperative plan of maintaining one office for many homes, the overhead cost prorated to the individual institution would be much less than the support of its own office. Moreover, the examining physician, because of his knowledge of the type of work done by the different homes involved, could select the most desirable institution for each case.

Many homes without admitting offices accept contagious cases that are not seen by a local physician until several hours after their admission. These contagious cases would be rejected at the central admitting office and thus the various homes would be spared quarantine, to say nothing of the

needless expenditure and exposure of other children to the various communicable diseases.

In general, convalescence is more satisfactory and recovery is more rapid if certain factors such as pure air, sunlight, restful atmosphere, and undisturbed sleeping hours are provided. For these reasons a convalescent home in the country offers more advantages than does such a home in the city. The fact that some environmental conditions militate against recovery in certain types of disease must also be taken into account. For instance, children with cardiac disease should be away from the salt water and an altitude of not more than 1,200 feet above sea level is best for them. Since traveling exhausts the convalescent child and frequently delays recovery, it is advisable to select a convalescent home not too far distant from the institution supplying the case.

Play Space Should Not Be Hilly

While it is not always possible to select an entirely level area of ground for the home, nevertheless there must be little elevation because the convalescent child should not tire himself unnecessarily when playing outdoors. Some convalescent homes are so situated that while the total area is adequate, the outdoor space set aside for patients is entirely undesirable because of steep hills, ravines, gullies and even swampy sections. The out-of-doors plays a vital part in the therapeutics of convalescence. If economy must be practiced in the layout of the home, the building committee should not curtail the amount of outdoor space but should confine its economy measures to other less important divisions of the home.

It is customary for architects to place the building in the center of the allotted space. It would be much better to place it near the northern section line so that the playground space could have the maximum amount of sunlight. Both building and grounds would then have southern exposure. Roads for the use of visitors and for delivery purposes, leading through the grounds to the building, should be so placed that they will not be seen by the children. The possibility of accidents and contagion is thus minimized.

Experience has proved that if the convalescent home houses too many children its primary purpose is frustrated because it cannot give sufficient individual attention. On the other hand, if the group is too small, the per capita cost is unnecessarily high. Research studies and statistics indicate that eighty beds is the ideal number for such a home.

Another question that arises in planning a convalescent home is whether or not a single, fireproof building is more desirable than multiple small buildings. For the sake of administration and supervision, economy of operation and convenience, the former is more practical. Individual cottages offer the advantage of complete segregation, but this may be accomplished in one building when the unit system is used. This system, with approximately ten children to the unit, facilitates economy and administration since only one trained attendant per unit is required. In the event of the outbreak of contagion, quarantine may readily be established in a small group without quarantining the entire institution. The unit system is also a factor in the control of contagion because on admission each group may be referred to a separate unit for observation, thus doing away with an admitting ward. When an admitting ward need not be maintained, the full capacity of the home may be utilized at all times.

The unit system has the further advantage of permitting segregation by age, sex or type of patient. Under this system each section is a self-contained unit with all accessory facilities such as washrooms, toilets, lockers, utility rooms, attendants' room, supply closets and pantry, as well as necessary equipment for formula and food preparation in the event of the outbreak of contagion.

The placing of the various sections of the building, their equipment and furnishings, require much thought. Efficiency, economy of operation, scientific care and comfort must all be given proper consideration, and none should be stressed to the detriment of the others.

Equipment for the Admitting Office

The admitting office should be easily accessible. If the building has no elevator, this office should be on the ground floor and large enough to contain a spacious, well ventilated waiting room, a consulting room and an examining room, with dark room and record room. Since the examination of the child involves more than cursory inspection, the following equipment is absolutely necessary: (1) examining table; (2) stethoscope; (3) an outfit to include mastoid lamp, ear speculum, nasal speculum, tongue depressor, dental lamp and sinus lamp; (4) infant and adult type scales with height measuring rod; (5) daylight bulbs when sufficient daylight is not available, and (6) nose and throat culture tubes and slides for vaginal smears.

An office for the superintendent and her assistant, a business office, a visitors' room and a directors' room, with all attendant facilities, should be near the main entrance of the building. The visitors' room should include a desk and registry, a table, upholstered chairs, as well as lamps, ash trays, magazine rack, rug and pictures to make

the room as attractive as possible. A telephone booth in this room is always an advantage.

A small medical unit containing a doctor's office for consultation, examination and maintenance of records, a surgical dressing room for the purpose of changing dressings and caring for minor emergencies—with a small laboratory attached—a dentist's office, a combined heliotherapy and physiotherapy room, and a small waiting room makes a most convenient arrangement.

Living accommodations for the professional and nonprofessional help must be supplied. These rooms should be so situated that there is a separation between quarters for men and those for women. Recreation rooms should be provided for both men and women. Working facilities such as the laundry, drying room, storage rooms for food and supplies, refrigerator room, coal bins and engine rooms are easily taken care of in the basement.

Four Dining Rooms Are Required

The storeroom, on the north side of the building and a distance away from the children's playground, must have its receiving entrance and desk for the housekeeper. It is well to have a platform here for the unloading of trucks, with scales for weighing shipments.

The building should have four dining rooms—one for patients, one for the professional staff, one for the administrative staff and still another for nonprofessional help. The kitchen and serving pantry must of necessity be conveniently close to the dining room. All dining rooms should contain serving tables and dish closets.

The children's dining room should be large enough to allow for small tables accommodating four to six patients. Small tables encourage better deportment, give a more homelike atmosphere and do away with the en masse service of institutions. The room should be attractively decorated with colorful draperies and other touches to help make it inviting. It is a good plan to use colored dishes for patients on special diets.

Toilets, washrooms and a clothing room should be near the dining room so that children coming in from outdoors may hang their clothes and wash before going into the dining room. Wardrobes here and throughout the building should have low hooks that can be easily reached by the children.

Let us now consider the various wards to be furnished and equipped. The modern ward economically does away with the old type of ward and porch. A ward enclosed with a glass that does not exclude the ultraviolet rays of the sun serves the double purpose of ward and sun porch. The construction demands brick bases and iron framework to hold the special glass. Here and throughout the building junctions of walls and floors must be curved for ease in cleaning. The ward is protected from intense summer heat by either sunshades or awnings.

Beds in the ward should be of metal construction for the sake of cleanliness and durability, and their size should be suitable for the particular age group to be accommodated. Of the ten beds in the ward, two should be of the gatch type. On one side of the bed should be placed a metal chair; and on the other side a metal table should be provided with space for the child's personal articles. The color scheme throughout the ward should be soothing and cheerful. Toilets and washrooms should contain comb and brush cubbyholes of metal construction. Bathtubs and toilets must be of the low type for the convenience of the children.

At the entrance to the ward is the utility room containing all the accessories necessary for the functioning of the ward as a unit. These include bedpans, urinals with racks, a tub for soaking linens and utensils, sink, closet and cabinet space, soap dishes and towel racks. Near the ward's entrance are the nurse's desk, chair and lamp. A floor night lamp should be connected at the far end of the ward. Linen and supply closets may be placed in the corridor at the entrance to the ward.

No convalescent home can function properly without an isolation unit. Experience has shown that no matter how thoroughly children are examined prior to admission, contagion will occasionally occur. If no provision has been made, the entire institution must immediately be quarantined; admissions cease even though a large number of beds may be vacant; children and personnel are exposed, and needless medical expense is entailed. In certain types of contagion there is additional expense in transferring patients to contagious hospitals.

Isolation Unit Should Be Self-Contained

Some homes provide an isolation ward with a cubicle at each end of the general ward. This is a poor arrangement. Careful studies have demonstrated that the approximate ratio for the best working basis and the least waste of money and space is about 5 per cent of the total capacity of the home. No pressure for beds in the other wards must ever allow the isolation unit to be used for other than its original purpose and it should be ready for occupancy at all times.

No unit is worthy of the name unless it is self-containing. The isolation ward must have all of the needed facilities, including a diet kitchen, a utility room, a washroom, a lavatory, running water in the ward, nurses' quarters, a separate

This playroom at the orthopedic hospital, University of Chicago Clinics, illustrates play facilities of a luxurious type.

entrance to the building, linen closets, food service and, for artificial illumination, day-colored lights.

If the isolation ward is divided into separate cubicles, it is easily possible to handle several types of contagion simultaneously with no danger of crossinfection. Each cubicle should be of glass construction, reaching about four feet above the height of the bed and two feet beyond the foot of the bed, so that every patient is visible at all times.

Examination of exanthematous patients demands daylight. This can be provided in the daytime by a sufficient number of properly placed windows and when the daylight is not sufficient by the use of daylight lighting.

The isolation ward should have a door opening through a foyer into a separate, fenced-in, open air playground so that children recovering from contagion—or even suspected cases—may enjoy the out-of-doors without coming in contact with other children.

Certain types of activity and recreation require provision indoors and so the convalescent home should have a well equipped gymnasium and recreation room. The gymnasium ought to be equipped for such games as handball, basket ball, squash and indoor baseball, with the floor marked out accordingly. Its walls should have racks to hold wands, dumb-bells and Indian clubs. Special apparatus such as horses, horizontal and chinning bars, rings and swings, should also be included, as well as mats to guard the children against possible injury. Windows and ceiling lights should be protected by gratings.

The recreation room serves principally as a place in which to play during inclement weather, but it can also be used to good advantage for general assembly and amateur theatricals. This room should be provided with a stage and dressing rooms. Book shelves, as well as toy and game closets, are also essential. Long tables and benches are preferable to small tables and chairs here because of the nature of the games played and the convenience of handling when clearing the floor. The floor should be painted to mark out the different indoor games. A piano, a radio and a phonograph are decided aids in the recreation room for marching games, dancing and theatrical entertainments.

Classrooms and a swimming pool have been

omitted in my recommendations for a convalescent home, as well as rooms for occupational therapy. The period of confinement in the convalescent home is too short to include occupational therapy. This activity might better be employed in a reconstruction home where the length of stay is longer.

An activity that seems to have been overlooked in the majority of convalescent homes is recreational gardening. Most children are keenly interested in gardening, especially the youngster who is too ill to participate in more strenuous exercises, and the surplus energies of the child who becomes excited when participating in more active sports can be diverted to gardening.

Responsibilities of the convalescent home do not end with the completion of the building, grounds and equipment. A most important factor in convalescent care is the personnel. The buildings and grounds function through the personnel and a home that is superior as to scientific equipment may operate poorly when the staff is not competent. This human element accounts for the effective work that has been accomplished by some badly equipped institutions.

The doctor connected with the convalescent home for children should have had considerable experience with children and children's diseases, including contagion. A pediatrician is, of course, more desirable than a general practitioner, other things being equal. This doctor examines all children upon their arrival and also when they leave the institution; he should be on call at all hours for emergencies, and he must visit the home at regular intervals. The length of stay of the patient should be determined by him wherever possible.

Graduate Nurse Should Be in Charge

Another important responsibility that unfortunately is rarely assumed by the doctor is the supervision of nursing technique. This necessitates a thorough knowledge of nursing that hospital training alone can give. Therefore the doctor should have some past or present hospital connection.

Some difference of opinion exists as to whether or not a home requires the services of both a resident physician and a consulting physician. I believe the duties involved in the care of convalescent children can be discharged by a conscientious and competent visiting physician. He should be remunerated for his services since volunteer work is rarely successful.

It is exceedingly important that the administrative director be a graduate nurse since convalescence requires a knowledge that goes beyond the technicalities of business organization. This fact evidently is not taken into consideration by some of the convalescent homes that have lay superintendents. A mature judgment and professional training are essential requisites of the executive of a convalescent home.

The supervisor's knowledge of the daily condition of her charges should not be based upon desk reports but upon daily personal and individual examination of each child. During her inspection of the institution she must also look for irregularities in order and cleanliness. The plan of nursing technique must be evolved and decided upon in consultation with the doctor and it then becomes her responsibility to see that this is maintained at all times. The various diets should be planned with the doctor, and she should make frequent visits to the kitchen. She is also responsible for the routine administration which includes policies, purchasing and the maintenance of proper professional and business records and standards.

Rest and Play Must Be Properly Balanced

The number of graduate nurses in an institution necessarily varies with the age grouping of the children. When infants are cared for, the number increases. Nurses are responsible for the preparation of the formulas, administration of medication, hygiene, minor injuries and ailments and dressings. Relief nurses must be provided for night work, for contagious cases and to replace nurses off duty.

During meal hours it is the nurse's duty to watch the group to see that each child eats all of the food served. If he does not, she should try to find out the basic cause for the lack of appetite. Dietitians can plan menus and nurses can fill the plates, but the little convalescent will eat only what he likes and not a bit more unless he is properly influenced.

To preserve a proper balance between rest and play is one of the duties of the play director. She must supervise games—both indoors and outdoors—and help with theatricals, reading and other forms of activity. She must report to the nurse the daily condition of the children at play and at rest.

The kitchen staff, including waitresses, kitchen maids and the cook, all must have food handlers' certificates from the board of health. The cook should be able to prepare food that is tasty and attractive.

Nonprofessional positions, such as those of gardener and chauffeur, are important. Since children often come in contact with the nonprofessional help, the individuals employed for such positions should have unquestionable character and personality as well as competence in their work.

Nursing Schools—After Two Gradings

By
MILDRED WHITCOMB
The Modern Hospital

NURSING has just taken a seven-year look at itself, and in seven years a profession—if its study has been intelligent—should find out a great deal.

Without question the grading study has been intelligently conducted. The names of Dr. William Darrach as chairman and May Ayres Burgess, educational statistician, as director, and the twenty-two representatives of hospitals, medicine, nursing, public health and the public were proof against the gathering of half-truths and the sidestepping of real issues.

The final report—successor to "Nurses, Patients and Pocketbooks"—is not yet out, but the information gathered in the second grading is now in the hands of all hospital heads participating in the study, and they can draw their own conclusions and do their own philosophizing. In fact, they can unite to set up their own minimum standards if they are too disappointed over the decision of the Committee on the Grading of Nursing Schools to omit the publication of actual standards.

If the patient is to be amply protected, nursing education is headed for big changes and is, indeed, already caught up in a great reform movement. Nobody would seriously contend that the caliber of the rank and file of nurses today is of the high order it was at the turn of the century when trained nursing was still new. The ranks of the cultured professional nurse today have been seriously diluted by mediocre and inferior material until the title "R.N." does not necessarily carry with it the respect, confidence and gratitude of the whole public.

For this situation the producers of nurses must assume a large share of the blame, even though they acted in what seemed the first interests of their client, the patient. The public, its earlier fears overcome by the rapid advances of scientific medicine, flocked to hospitals for care, and to provide these new patrons with skilled attention hospitals of all types hurriedly opened schools of nursing.

The mass production methods adopted by hospitals soon began to discourage many young women

Few college dormitories equal or outclass our nurses' residences. Maxwell Hall at Columbia-Presbyterian Hospital, New York City, which is shown on this page, is an example of their dignity and modernity.

of the higher type, and dozens of new occupations were beginning to compete for their attention. The sad result is that women with cultural background in this country do not enter nursing in the same numbers as they do some other occupations and professions that offer more in financial returns but much less in spiritual satisfactions. The public is the loser.

For student nurses, many of them lower middle class, a good many hospitals have been giving lower middle class training—some of it not much above the correspondence school level. Now it happens that good instructors and plenty of good supervisors can manage to get good nursing out of poor material, but because hospitals were established in such numbers a scarcity of good teachers and supervisors was soon experienced. It was not long before a great many young girls with R.N. after their names but with little more background or education for nursing and teaching than the girls they taught were in supervisory capacities in the hospital. Thus was set up a circle of particular viciousness.

Then came the Committee on the Grading of Nursing Schools. The Rockefeller report in 1923 had anticipated many of its findings, but it was based on a small number of schools and few were influenced by it. What the committee uncovered in its first grading was a situation sorry to contemplate. It looked as if the majority of hospitals in this country had set up systems of noneducation rather than of education. The picture of these nursing schools, many of them schools in name only, is well presented in the committee's first report.

The second grading presents a more hopeful prospect. In the three years following the first grading, hardly any hospitals stood still or lost ground as far as their nursing schools were concerned. Economic pressure was heavy, many hospitals were running deeply into the red, nursing schools were forced to radical reductions in expenditures, but in spite of all these handicaps educational standards went up.

It is the improved trend more than the actual feats of accomplishment that gives the grading committee cause for jubilation. Standards, though higher, are still all too low, but in all quarters is evidenced a zeal for correcting the defects pointed out in the first and second gradings.

What did the grading committee learn about nurses and their schooling in the second grading? This second study covered the three-year period from 1929 to 1932 and not everyone has had time to assimilate all of its recently released findings.

Most important, it found that the trend was

Not at all typical of the library resources in nursing schools is this splendid reading room at Lakeside Hospital, Cleveland.

definitely in the direction of self-improvement. Records for the 1,383 schools studied showed a change for the better in three-fourths of all the comparisons made.

The committee contends that, in general, the items on which schools made a poorer showing in 1932 than they did in 1929 were those over which the nurses have no control. Many of them no doubt were items over which the hospital administrator did not have full control. Both boards of trustees and the public must be educated to their various responsibilities toward nursing education before some reforms can set in.

The Darkest and the Brightest Sides

A major hospital contribution to the somewhat happier 1932 picture of nursing education takes the form of higher standards for individual hospitals. The number of hospitals meeting the minimum standards of the American College of Surgeons, holding institutional membership in the American Hospital Association, and having been approved for internship by the American Medical Association, has risen, and consequently more schools of nursing are now connected with hospitals of approved standing. The grading committee holds, of course, that no hospital that does not meet the minimum requirements set by hospital and medical organizations should conduct a nursing school.

For the sake of sharp contrast let us consider first the darkest and then the brightest sides of nursing education as revealed by the second grading. There are still far too many student nurses in the United States, and when the second grading ended late in 1932, although schools had decreased in number, there had been no abatement in the hordes of recruits sought and accepted for training, a situation particularly distressing to private duty nurses. Later unofficial figures gathered by nursing organizations indicate that there has been a drop of 10,000 in the number of students since 1931, a trend which brings hope but which will need to gather considerable momentum before it brings relief.

Of even greater seriousness to the whole public is the revelation of the grading committee in regard to the paucity of training in psychiatric nursing being given in hospitals. With something like 50 per cent of the hospital population needing psychiatric nursing care, it is appalling to find how little practical experience the undergraduate nurse is getting in the care of mental patients.

Of some 15,000 student nurses in the graduating classes of 938 schools on the grading committee records, it was found that 80 per cent had either no practical experience or less than one month in psychiatry. Three-fourths of them had nine days or less on this service. Only 12 per cent had as much as two months' training in this field, which is the amount recommended by the National League of Nursing Education.

A somewhat similar situation exists in regard to student experience in nursing patients with communicable disease. More than half of these 15,000 students in the graduating class had never spent as much as a day's time on communicable disease. Three-fourths of them spent less than one month. Only 11 per cent of the lot spent the two months recommended by the N. L. N. E.

Is it any wonder that doctors find it difficult to get a private duty nurse to accept a communicable disease or psychiatric case? The impression has always been given that graduate nurses disliked or feared cases of these types. It now appears much nearer the truth to say that the R.N. dodges these cases because she realizes the handicap of her own inadequate training.

To compensate for the bitter truth of these conclusions, let us turn about face and look upon nursing education in one of its brighter aspects. When it comes to housing, the grading committee radiates extreme pleasure. In their dormitories for nurses, hospitals have just cause for pride. Handsome, new, artistically furnished, these buildings compare favorably with the student dormitories at the best women's colleges.

In 1932, one-fourth of the nurses' residences were less than five years old. Half of them had been built within the last ten years.

Single Rooms Recommended for Students

One recommendation only is made by the grading committee in connection with the planning of student dormitories. That has to do with individual rooms. The double room and ward system must give way to single rooms if the student is to enjoy the unbroken rest that her strenuous routine makes necessary.

The academic background the student nurse now brings to the hospital is another cause for self-congratulation by the schools. Extraordinary improvement in this respect took place between the first and second gradings. High school education is now accepted as an almost universal requirement, and many schools are admitting only high school graduates whose standing is above average.

Those who teach student nurses are better educated, although the nursing school faculty is still far from the grading committee ideal—a college degree coupled with special training in teaching and nursing. Now 29 per cent of nurse faculty members are not high school graduates, which puts them at a marked disadvantage in teaching

students whose academic preparation is superior to their own.

In the average hospital there are more full-time instructors and more graduate head nurses than there were in 1929. Faculty turnover, owing no doubt to the depression, has been reduced, and the increased tenure leads to continuity of thinking and policy.

"If, after prosperity returns," says the committee, "these longer tenures can be maintained, they will represent permanent gain for nursing education and for the quality of nursing service."

Definite reduction in the health hazards of student nursing has taken place since the first grading. At that time only 2 per cent of the schools reported that all students had been given a physical examination during the year. In the second grading, 50 per cent of the schools had made an annual check-up of their students.

Student's Working Day Is Too Long

Vacation periods for students are lengthening, another health protective measure. Fewer schools give two weeks' vacation each year and more permit a three-week holiday.

Unfortunately the economic depression has served to lengthen the hours of day duty for most student nurses. An encouraging reduction has been made in the night duty hours, but the grading committee is agreed that particular stress must be placed on cutting down the student's working day and working week. No student should be on duty more than eight hours a day and forty-eight hours a week.

As to the curriculum, the National League of Nursing Education recommends a minimum of 885 hours of total instruction. In 1929 the median school gave its students 631 hours. The second grading saw this creep up to 761 hours. Four subjects only saw no increase—gynecology, occupational therapy, physiotherapy and elements of social science. The 885 hours set by the N. L. N. E. as a minimum is certainly little enough to demand, for it represents only one-eighth of the total student hours, yet the typical school allows only one-tenth of students' time to be spent on theory.

Splendid gains have been made in the number of teaching hours given to pediatrics, general medical diseases, materia medica, nursing history and ethics, and personal hygiene.

It is regrettable that students are still required to spend a great deal of time on noneducational duties. Students have been used to replace lay employees in the laboratory, the pharmacy and the office, a result of the reduced hospital budget.

Nursing school library facilities are not what they should be, the committee finds. Some of the reference libraries consist of a few volumes of outmoded medical science, and few new books are added during a year. In about one-fourth of the schools the reference books were made secure against casual reading by being placed under lock and key. Not only open shelves and unlocked cases are recommended, but a definite requirement of regular reference work and outside reading is urged.

The habit of professional reading gets greater encouragement when it comes to periodicals. The nursing journals are provided and it is pleasant to note that 90 per cent of the schools have a hospital magazine. They are not so well off when it comes to medical publications.

Training school committees, an excellent device, are not gaining ground as the friends of nursing education so much wish they would. There were actually fewer of these committees in 1932 than in 1929. Nor do as many hospitals make it a policy to invite the head of the nursing school to the board meetings when questions affecting the policy of the school are being discussed. Twenty per cent of the schools now have some sort of budget of their own; this is one of those items in which it is the trend rather than the achievement that is encouraging.

The committee met on May 15 to consider its final report as prepared by the director. This means that the recommendations will be in the hands of hospital administrators within a short time.

With all these facts at hand and with interest genuinely aroused, it will be a sad pity if hospital and nursing organizations do not unite to put into immediate effect many of the grading committee's recommendations. It should be an interesting band wagon to climb upon.

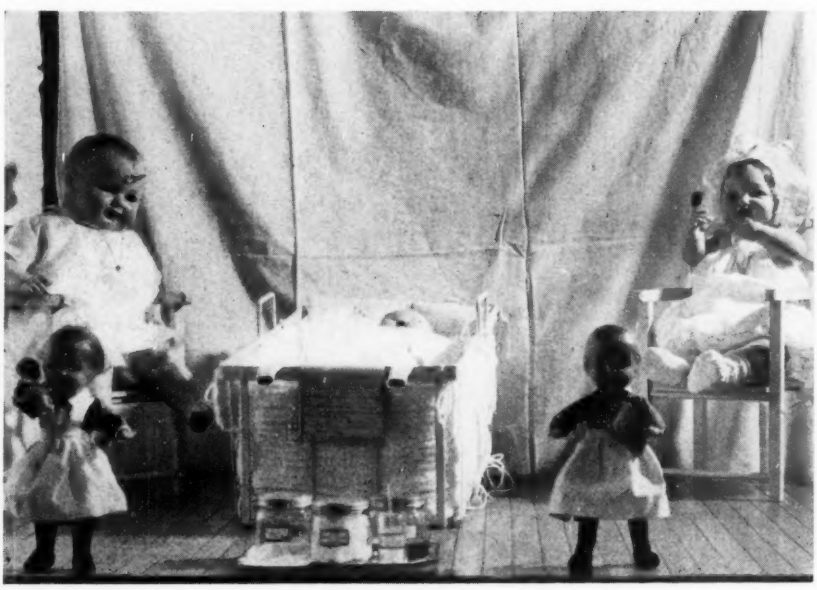
More Men Nurses Are Needed

As soon as the oversupply of nurses shows signs of being corrected, it may be thought worth while to start a little recruiting among the other sex. Certain nursing needs of men patients suffering both from physical and mental disorders can probably be better met with men nurses, and the appeal must be made to young men of good breeding and high intelligence. Further studies are needed to determine whether or not the supply of Negro nurses is adequate.

Certainly hospitals for humanity's sake must take immediate steps to curtail the number of students, to increase undergraduate psychiatric and communicable disease training, to consider the advisability of more and better theoretical instruction and to add more and better qualified graduate nurses to the staff to relieve students and to give them better supervision.

International

National Hospital Day, 1934



ABOVE are six of the 545 members of the Baby Guild of Lutheran Hospital, Brooklyn, N. Y. . . . The window display in the center was a May 12 feature of the Clifton Springs (N. Y.) Sanitarium and Clinic. . . . Evansville, Ind., Deaconess Hospital persuaded a local newspaper to put out a special hospital day edition. . . . Nurses of the Public General Hospital of Chatham, Ontario, enacted a radio drama called "Florence Nightingale in the Crimea" (at the right) . . . The poster was made by an 11 year old patient at Children's Memorial Hospital, Chicago.

Treatment by Diet—When and How?*

Dietetic treatment of disease is a neglected subject in most hospitals. Dietaries, both standard and special, require much study and greater standardization. Institutional staffs should have strong dietetic committees constantly endeavoring to eliminate waste and to improve the therapeutic efficiency of foods. This is a subject that deserves the earnest attention of all administrators and physicians

By JOSEPH C. DOANE, M.D.
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IN THE May issue of The MODERN HOSPITAL the subject of the hospital dietary was approached from the therapeutic angle. It was pointed out that in too many instances the cost of the dietary is emphasized at the expense of its therapeutic value.

It is the purpose of this second article to describe more particularly the nature and rationale of the standard diets employed in the hospital and to amplify further the indications for and the physiologic reasons underlying the serving of a more specialized type of food. Although the routine diets of the hospital have been described as standard, this term is misleading because no generally accepted nomenclature has been adopted in designating these regular types of diet. Usually they are referred to as liquid, soft, light and house diets. The ingredients that these terms describe are almost as varied as are the hospitals employing them. In the dietaries of some institutions, the adjective "restricted" is applied to the liquid diet to imply that the total amount of fluids has been markedly reduced.

Liquid diets usually consist of fruit juices, gruels, milk, buttermilk, albumen water, carbonated waters and other beverages. In some instances ices, ice cream, gelatin and junket are added. Usually the dietitian plans to serve eight ounces of some liquid every two hours. Sometimes the interval is shortened or lengthened and the amount of fluids is varied accordingly. Although every institution employs some sort of nomenclature for its standard diets, staff physicians are frequently totally ignorant of the nature and food values of these groupings.

The soft diet is perhaps the most uninviting. It includes cereals, puréed vegetables, potatoes in various forms, puddings, custards and gelatins, in addition to those liquids included in the first named group.

The light diet consists of the articles already mentioned, plus meats of various types with the exception of steaks, roasts and other meats included in the full house list.

The nature of standard diets is, of course, of more importance to ward patients than it is to those treated in private rooms because in most hospitals a selection of foods is given to the latter type of patient. The essential difference, therefore, between standard and special diets, so far as the ward patient is concerned, is that in the latter the doctor makes the decision as to which foods are therapeutically best for the patient while in the former diet he has no option. The private patient is allowed to choose from the standard diet the foods he desires, although special diets are still outlined by the physician.

Patient's Mind Should Be Put at Rest

Incidentally, no good reason seems to exist why the selective principle might not be applied in some instances in the serving of special diets. After all, the quantity of protein ingested concerns the physician much more than the name or nature of the article that supplies it. There is no particular reason why special diets should be unappetizing. Moreover, if the principle of selection could be applied more often to these diets, waste would certainly be minimized.

The patient often is unable to understand why his food must be innocent of salt or why a much

*Practical Administrative Problems Series.

desired dessert is contra-indicated. It would be well if the doctor could devote a few moments to the explanation of the rationale underlying the special diet he orders for his patient. As a result digestion would certainly be assisted and the patient's mind would be put at rest as to the necessity of being required to forego articles of food of which he is fond. The hospital is the proper place to increase the patient's knowledge concerning the nature of such terms as protein, fat, carbohydrates and calories. These commonplace terms that roll so easily from the tongues of doctors and dietitians are Greek to the day laborer.

Amount of Raw Food Required

The rationale underlying standard diets, therefore, is largely nutritional and to a much less degree therapeutic. From the standpoint of the dietitian, however, standard diets must be more or less indefinite in their economic and nutritional values because she has no requisitioned specific amounts or caloric values to guide her in their preparation. Requisitions for raw materials are based on census slips too often carelessly prepared by ward nurses. The factor of error is usually great and waste results because too much rather than too little food is prepared. The amount of food served to a patient, as well as the caloric value of each article or meal, is far from standard.

Many good dietitians have worked out for themselves rather accurate and useful standards of raw materials necessary in the preparation of each diet, as well as more or less routine amounts covering the servings to each patient. With these facts, it becomes a matter of pure arithmetic for the dietitian to determine the gross amounts of raw materials that must be contained in her requisitions. The American Dietetic Association recently prepared some interesting and useful tables covering this point.

The liquid diet is frequently prescribed for the postoperative patient and the patient suffering with nausea or other evidence of acute gastro-intestinal disease. Often there appears some confusion as to the relationship of the so-called nourishments to the liquid diet. Most dietitians understand the term nourishment to mean broths, soups, fruit juices and similar foods served between meals to patients for whom diets other than liquid have been ordered. It is a more or less routine custom to serve some light food in mid-forenoon, in mid-afternoon and at bedtime, particularly to private patients.

The practice of sending each morning to the wards and private floors fruit juices, carbonated drinks and milk in bulk for service during the day, is often costly to the hospital. The dietitian loses all control over such supplies unless she knows to which patients they are to be served. The central nourishment system has been evolved as the solution to this difficult problem. The dietitian sends on order at regular times during the day the ingredients necessary for the preparation of nourishments for specifically named patients. While this plan does not entirely prevent the appropriation of supplies by persons for whom they were not intended, it does provide a method of control that is businesslike and usually effective. Whenever extra nourishments are ordered for a private patient and consumed by the patient or his visiting friends or relatives, a special charge should be made. Only the routine thrice-a-day nourishments are covered by the patient's room fee.

Both the caloric and chemical values of standard diets must remain more or less in question under the present system. There can be no certainty as to either of these attributes unless the physician specifically and intelligently prescribes in grams and calories the articles he desires his patient to receive. Special diets, however, are like the medicines in that each must be ordered to meet a specific need of an individual patient. The amounts of the chemical ingredients of these prescriptions are definitely stated and their suitability is determined only after a thorough consideration of the patient's needs. Hence, a full knowledge of the physiology of digestion as altered by the existence of a disease process and a general understanding of the present state of metabolism of the body must be represented by each special food prescription that reaches the diet kitchen.

Several Types of Special Diets

Special diets can be roughly divided into those intended to assist in the treatment of gastro-intestinal diseases, those used in treatment of metabolic diseases and those used in treating diseases of specific organs or systems, such as nephritis, hypertension, cardiac decompensation with edema, arthritis and diseases of the blood. Let us glance at the nature and characteristics of each of these special food groups.

Gastro-intestinal diets are most often directed toward the relief of peptic or duodenal ulcer and disease of the colonic tract. Dietetic treatment of ulcer of the stomach is of prime importance. Although no generally accepted cause of gastric ulcer has been propounded, much splendid work has been done toward bringing about an understanding of this condition. Increased acidity of the stomach contents is always an accompaniment of this condition, although few will conclude that it plays the rôle of either cause or effect in all instances. The principles underlying a diet for this condition con-

sist of an attempt to provide sufficient nourishment for the patient and the utilization of the excess free hydrochloric acid without overtaxing the stomach. Feedings are usually frequent, small in amount, and largely protein in nature. Cream is useful because of its inhibitory effect on gastric secretions. All foods employed in the treatment of this condition should be smooth and soft in order to lessen mechanical irritation. Meats, acid fruits, alcohol, coffee and tea, which stimulate gastric secretion, are usually limited or entirely prohibited. All hospitals include in their special dietary a definite food routine for the treatment of gastric ulcer and while its ingredients may vary somewhat, the generally accepted principles already mentioned are usually observed.

The Colitis Diet

The Sippy and Karell diets employed as standards in the treatment of gastric and duodenal ulcer are too well known to require more than mention. Here, as in other special diets, the item of definiteness is a real virtue. The Sippy diet, for example, not only directs the serving of clearly stated amounts of food at definite hours, but also carries these instructions over a period of three weeks. A mere verbal statement of food negatives and positives as the patient leaves the institution for his home is insufficient. No food treatment can be effective unless word of mouth instruction to the patient is supplemented by the use of cards setting forth simply and concisely all facts relative to the patient's dietary.

Dietary treatment of diseases of the lower intestinal tract has been studied extensively by clinicians and investigators. The frequency with which the diagnosis of colitis is made and the lack of understanding as to its nature and true importance in diseases of the body generally have led to the appropriation of this type of treatment by all sorts of quacks and pretenders. Colonic putrifaction and fermentation of food have been held responsible for the causation of many diseases that afflict mankind. Scientists of undisputed standing have practiced such a radical step as the surgical removal of the colon. Nevertheless, the effect of disease or dysfunction of the nerve supply of the intestinal tract upon the spasticity or relaxation of the colon is not always recognized since frequently an undue contraction or relaxation of its muscles produces symptoms that in reality have no causative relation to the intestine.

The colitis diet appearing in hospital food lists has underlying it an increase or decrease in food residue or a modification of its consistency. The bland diet frequently employed consists of purée of vegetables, stewed fruits and other smooth food substances, together with articles containing vitamin B that have been proved to exert considerable effect upon intestinal digestion. These diets may be aimed at the correction of intestinal sluggishness and may contain, therefore, a maximum of indigestible cellulose and hence bulk.

Anticonstipating diets have been the subject of much quackish experimentation. The radio reverberates with cures for constipation. Because of the ill considered remarks of the physician or untruthful statements in the press and over the radio, the public has apparently come to believe that health and happiness and even life itself depend to a great degree upon the chemical and bacteriologic processes of the colon.

Some institutions include in their dietaries high and low caloric diets aimed at undernutrition and the correction of overweight. Use of insulin in the creation of appetite and in the stimulation of metabolism has, in the hands of many physicians, proved a great adjunct to the use of high caloric diets. Much has been claimed for the efficiency of reduction cures. Indeed, many hospitals conduct what they describe as obesity clinics in which the problem of overweight is studied from both endocrine and dietary standpoints. If a reduction treatment seems necessary it is much safer for the patient to fall into the hands of a physician who is scientifically trained than it is for him to entrust himself to the quack who flourishes in spite of a scanty knowledge of the subject of therapeutics and a still more paltry understanding of food and its metabolism.

Diets for Heart and Kidney Diseases

The dietetic treatment of nephritis is of much interest. The kidney, the purifier of the blood, withdraws by means of the selective activity of its epithelium cells the salts and waste products of the body dissolved in water to be later excreted as urine. When tissue thirst exists water is retained and dropsy results. Hence dietetic treatment must take into consideration not only the lessening of the load of kidneys that are laboring because of disease but also the chemical principles of osmosis. When edema exists fluids are usually restricted in order that sodden tissues may be forced to give up excessive water.

The physician in planning for a special diet must take into consideration the surface area and weight of his patient as compared with ideal figures collected as a result of experience with the disease being treated. The treatment of nephritis with food, however, consists largely of maintaining body weight and strength without further embarrassing diseased kidneys. Hypertension or elevated blood pressure is a common accompaniment of heart and

renal disease. Dropsy is a frequent accompaniment of disease of both of these systems.

In planning a diet for heart and kidney diseases the physician must take into consideration the ability of the circulatory system to function, as well as that of the kidneys to eliminate body waste. When edema is found salt is usually restricted and as a result patients often complain bitterly of the tastelessness of these diets. Sodium malate, which can be used as an acceptable substitute for sodium chloride, possesses little of the fluid retaining action of the latter. The efficacy of the treatment of diabetes depends largely upon the intelligence with which food is prescribed. The discovery and use of insulin make but little less important the proper handling of the diabetic's food problems.

Arthritis is another condition in the treatment of which dietetics plays a most important part. While no general agreement has been reached as to the best and most efficient diets in this condition, there are those who believe that a low carbohydrate, high fat and protein diet is most efficacious. There are others who restrict proteins, particularly in gouty conditions, and rely on carbohydrates and fats to maintain the nourishment of the patient. The nature of any diet, from the standpoint of either its chemical components or its caloric value, will depend upon the individual needs of the specific patient for whom it is ordered.

Much hope was brought to the sufferer with pernicious anemia by the discovery in 1926 of the fact that the ingestion of liver wrought almost miraculous results. Most hospital dietaries not only contain special lists of foods for the treatment of diseases of the blood but also provide interesting and useful suggestions as to the methods by which liver can be served. Thanks to the industry of biologic houses, the nauseating effect of daily ingestion of large quantities of liver has been somewhat alleviated by the preparation of this article in hypodermic and powder form.

Finally, most hospital dietaries list also certain diets to be used in the study and diagnosis of disease conditions. The Ewald Test breakfast is well known. Certain kidney function tests depend upon the concentration and dilution diets of Volhard and Fahr and the administration of glucose in known quantity is a common practice at the present time in the effort to discover the ability of the patient to metabolize this portion of the diet.

A Bit of Hospital History

Twenty years ago this month:

Dr. H. A. Boyce, secretary of the American Hospital Association, announced in the June, 1914, issue of The MODERN HOSPITAL that the next convention of the association would be held in St. Paul, Minn., in August.

James Deering of the International Harvester Company gave $1,000,000 to Wesley Hospital, Chicago, to endow its charity work.

The Illinois state hospitals for the mentally ill announced that they were discontinuing the use of male nurses as they found women more successful in controlling patients and better satisfied with the salaries offered.

A psychopathic ward was established at Philadelphia General Hospital, Philadelphia.

Odin R. Edwards resigned as superintendent of Hahnemann Hospital, Philadelphia.

The Hospital Saturday and Sunday Association of New York City (now the United Hospital Fund) distributed $110,000 to forty-seven hospitals, the largest amount distributed to date.

The Society of the New York Hospital announced a pension plan for all employees with pensions of $15 to $125 a month, depending on the average salary during the preceding five years. This was the first such plan announced by a nongovernmental hospital.

The Hospital Section of the American Medical Association met in Atlantic City under the chairmanship of L. B. Baldwin of Minneapolis.

Professor C.-E. A. Winslow was curator of public health at the American Museum of Natural History in New York City and head of the state commission on ventilation.

Dr. H. O. Collins was superintendent of Minneapolis City Hospital, Minneapolis.

A bronze medallion was unveiled in honor of Dr. John H. Musser, founder of the social service department of the University Hospital, Philadelphia.

Cleveland City Hospital, Cleveland, was being reorganized by Howell Wright, superintendent, to eliminate homeopathic physicians.

Dr. W. L. Babcock, superintendent, Grace Hospital, Detroit, was erecting a special building for the housing of domestic employees.

Care of Fire Equipment

Annual recharging of foam, soda-acid and calcium chloride fire extinguishers is essential, according to C. B. Langdon, chief engineer, Factory Fire Insurance Association, Hartford, Conn. The opportunity to examine the condition of the shell of the extinguisher is one of the advantages in this maintenance program. Working tests to discharge a small quantity of carbon tetrachloride will show up any defects that have developed in that type. Where the discharge depends on stored pressure of carbon dioxide or some other gas, weighing the charge is necessary at least annually. Hose nozzles on extinguishers should be inspected frequently.

Stationary equipment for applying foam or carbon dioxide in large quantities through fixed nozzles or outlets should be tested insofar as the automatic or manual actuating devices are concerned, although it usually is not practicable to discharge the extinguishing medium except where the units are of a type which have to be discharged annually.

How to Organize a Department of Physical Therapy

By EARLE E. SHEPLEY, M.D.
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Cultists and irregular practitioners have prejudiced many doctors against physical therapy. But there are ailments that drugs or surgery cannot cure. In some of these, nature's healing powers can be assisted by properly applied physical therapy. How to set up a department is told in this comprehensive report of a committee of the Canadian Hospital Council[1]

THE ART of treating, by means of physical agencies, the manifold disease conditions and disabilities to which the human body is heir is known as "physical therapy." By no means is this a new subject, for human ills have been alleviated by means of physical agencies since veriest antiquity; medical history is rich in evidence of this fact.

Today, by the application of modern scientific conceptions, older methods of treatment by physical agencies have simply been brought up to a point of increased efficiency and definite guiding principles have replaced empiric considerations. In addition, the field has been extended by the acquisition of further therapeutic accessories, largely electrical, and although these later additions comprise but a small part of the total field, there are many who look upon the subject as consisting entirely in the exhibition of one or more of these modern innovations. Such a conception is entirely erroneous for physiotherapy, properly visualized, is an exceedingly wide field and embraces an infinite variety of treatment procedures.

Interest in Physical Therapy Is Growing

Every actively practicing physician is familiar with the multiplicity of human ailments that are neither normalized by drugs nor cured by surgery. In this vast field, physical therapy finds ample scope for its exhibition. It finds indication for the simple reason that it is known definitely to bring favorable influence to bear upon the healing power of nature; it should be recalled that it is upon this natural function that every physician depends when treating human infirmities for, if we can assist nature to react more efficiently and with greater precision in exercising her normal healing powers, we have rendered definite service. Properly applied, physical therapy functions by removing impediments that are hampering nature in the fulfillment of her normal activity.

Because of this power of efficiently applied physical therapy, it is not surprising that those in charge of hospitals should become increasingly interested in this field and its possibilities. This is as it should be, since a hospital primarily exists for the purpose of providing and centralizing all those conveniences and services required to render the best possible service to the sick. The installation of an adequate physical therapy department in the hospital not only makes for better service to the patient, but it tends also to lessen the worry and anxiety of the physician who has the responsibility of providing the proper care for his patients. Because it lessens the hospitalization period, a physical therapy installation appeals also to those who are responsible for the provision of hospital finance.

The field open to legitimate physical therapy is indeed wide. For practical purposes this field may be subdivided and it may be stated that the employment of physical therapy is indicated in:

1. Assisting nature to restore and maintain normal health levels.
2. Shortening the period of convalescence after acute systemic disease.
3. More quickly and thoroughly restoring function after disabling injury.
4. Lessening or eliminating permanent disability after traumatic injury.

[1]The committee was composed of the chairman, Doctor Shepley, and of Dr. Harold D. Storms, Toronto, Dr. George A. Greaves, Vancouver, and B. Evan Parry, Toronto architect.

5. Providing valuable palliative in many and varied types of pain and discomfort.

6. Assisting to heal various types of acute, subacute or chronic pathologic conditions that cannot otherwise be as adequately dealt with.

7. Assisting nature to establish stability in that large group of cases that are ordinarily designated as functional disorders.

With this brief summary in mind it is not difficult to visualize the possibilities involved.

The decision to organize a physical therapy department in the hospital immediately introduces a host of problems. Where should the department be placed and what space will be required? What equipment will be required and what staff will be needed? How will the department be administered and how will the undertaking be financed?

A Survey Should Be Made First

Because of the importance that must be attached to these decisions, it would seem desirable to make a thorough preliminary survey of the local situation. In the preliminary survey, it will be of great service to determine, over a period of years, the average annual number of patients listed under the various categories of disease and also to determine for each group the average hospitalization period. Only this information can give an adequate picture of the demands that will likely be made upon the department and the type of installation that will be required.

It is of equal importance to know not only the number of attending physicians, but also their individual reactions to the proposed plan. The factor of competition in neighboring hospitals and physicians' offices is not to be overlooked. With this data in hand any responsible physiotherapist is in a position to assist in directing the hospital how best to proceed.

In an endeavor to secure the medical staff viewpoint and its cooperation, both of which are essential, it is important that a clear conception of the proposed plan be placed before the attending physicians. At the outset, it is important to appreciate fully that the average medical man is inclined to be conservative in relation to treatment innovations. This has been proved to be the case in relation to physical therapy. The reasons that underlie this situation are many. A prime consideration in determining this attitude has been the fact that the rightful field of physical therapy has long been confused and misrepresented because of the intense interest that irresponsible cultists and irregular practitioners have taken in the field. This has been aggravated by the frequent exaggerations and misstatements for which professional salesmen have been responsible. Furthermore, many medical men have not been able to become personally acquainted with the fullest possibilities of physical therapy because of the difficulty experienced in securing competent aides or technicians. This unfortunate combination of circumstances has led, in many instances, not only to an unfavorable professional reaction but also to an improper conception of the utility of the field.

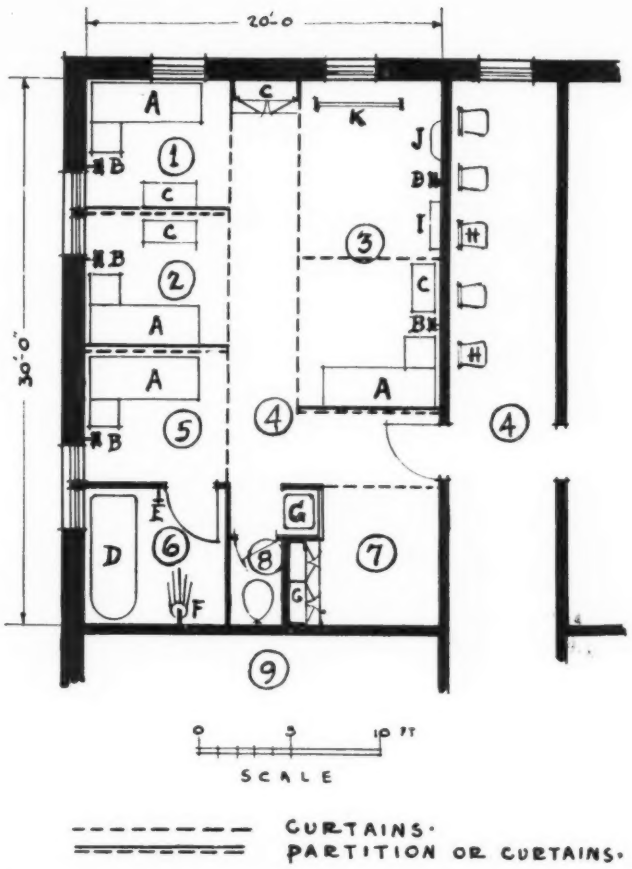
With this in mind, it would appear the part of wisdom to secure the services of a recognized director of physical therapy and have him place before the staff a clear-cut statement of the present status of physical therapy and its potentialities. It is of equal importance to assure the staff that the department will be efficiently administered and that the aides employed will be thoroughly familiar with the procedures they are dispensing. Frequently overardent commercialism has not only given physical therapy a questionable name among professional workers but has assisted in misrepresenting the field to the public. To those not thoroughly familiar with the field of physical therapy, the provision of a physical therapy department is sometimes thought to consist merely in the installation of a few rather costly pieces of mechanical apparatus. In many such instances, after the salesman has taught the nurse how to attach this apparatus to the patient and how to turn the current on and off, the installation is regarded as complete. It is this and equally unfortunate conceptions created in the professional mind that have too often combined to place physiotherapy in disrepute. A hospital department that is founded on such basis is foredoomed to failure.

Who Shall Direct the Department?

If a physical therapy department is to be installed in a hospital—and beyond all question the hospital provides the ideal situation for desirable centralization and concentration in this field—the foremost consideration should be that of personnel. This is of much greater moment than the selection of the necessary equipment or the making of minute decisions respecting the construction details of the department.

Who is to guide and direct the clinic? Who is to prescribe the various treatment procedures? Who is to see that the prescriptions advised are properly dispensed? Who is to say what cases will derive benefit from treatment, and who will decide when treatments should not be given, or when treatments already prescribed should be terminated? In the conduct of an adequate department, these questions are vital and are irrevocably bound up with that of directorship.

No good hospital will elect to court disappointment and failure in either the establishment or



Suggested layout for department of physical therapy in a medium sized hospital: (1) galvanism and sinusoidal; (2) diathermy; (3) massage; (4) corridor; (5) ultraviolet ray; (6) hydrotherapy; (7) record and dressing room; (8) toilet; (9) future extension; (A) treatment table; (B) power inlet; (C) supply cabinet; (D) continuous bath; (E) shower control; (F) shower head; (G) sink; (H) chair; (I) shoulder ladder; (J) shoulder wheel, and (K) bicycle or rowing machine.

In the hydrotherapeutic section the floor should be tiled and have a drain. Treatment tables should be 6 feet 3 inches long, 2 feet 2 1/2 inches wide, and 31 inches high. A shelf 8 inches from the floor will secure greater rigidity for the table legs and also may be used for supplies. Comfortable mattresses stuffed with silk, floss or hair and covered with a protective material, or made of sponge rubber, are recommended for each table. Each cubicle needs clothes hooks or a tree and a mirror. Power outlets should be at least 3 feet from the floor. Adequate ventilation is important.

the conduct of its physical therapy department, and for this reason it will attach maximal importance to the question of directorship for this department. As in every other medical specialty, the director of physical therapy should possess a background of wide medical experience. Not only should the prospective director possess a thorough practical and technical knowledge of the field of physical therapy, but, for the smaller institutions, he should be proficient also in radiology. In larger institutions, owing to the volume of work, this arrangement may not be feasible, but it should be capable of accomplishment in the average hospital. With these qualifications, a common directorship for the two departments is possible. This situation provides for more economical administration in the hospital and also provides full-time employment for the director. In this happy position, not only is the director freed from the distractions of competitive practice, but he is at liberty to give the fullest attention to the details of his chosen specialty. Obviously this is in the best interest of the hospital patient and of all concerned.

In the case of the small hospital in which there is neither a recognized director nor a skilled aide, a special problem is raised. In spite of this handicap the real need for the availability of physiotherapy in these institutions should be met to a limited degree, at least, by the provision of certain facilities and oversight.[1] In these situations, it would appear the part of wisdom for the institution to secure the services of a nurse who has a knowledge of massage procedures and also some practical familiarity with the more simple physical therapy procedures. While it may be urged that a nurse or technician with the right qualifications may not be generally available and that under such circumstances the work would be of but mediocre quality, such possibility cannot be accepted as an argument that entirely negates the desirability of such a proposal. So to admit would be to suggest that no treatment is better than a measure of treatment that is not entirely efficient. This conception is scarcely tenable. It would be preferable to impress upon the responsible heads of hospitals and training schools that provision should be made for the training of such workers. Whenever possible, the aides that are selected for this work should possess the best in academic and technical training.

The efficiency of the physiotherapy unit may be gauged by the service that the department renders to the patient, the hospital, the community and the attending physician. Failure to achieve this service can be traced back in many instances to lack of preliminary study and organization.

In conclusion, it should be emphasized that careful consideration should be given to those clinical records and data that would give the hospital some conception of the potential demands upon the department; consideration should be given also to the likely professional reaction to the contemplated installation. With this information one is in a better position to determine the layout of the de-

[1]The viewpoint is taken by many physiotherapists that, unless a hospital can provide a reasonable amount of equipment and oversight, it should not attempt to provide physiotherapy at all.

partment and the equipment required. To proceed with organization without considering these factors can but lead to regrets. If the proposal is properly presented to the medical profession, the doctors will readily appreciate that a well organized and adequately directed physiotherapy clinic, by virtue of making a major contribution to their therapeutic armamentarium, should be considered as an indispensable part of the hospital services.

Once the decision to establish a department of physical therapy has been made, the question of location has to be considered. In small institutions it may be advisable to use only mobile apparatus that can be taken to the patient's bedside; this requires little space. Even in larger hospitals, all too often it is necessary to adapt whatever space is available to the new service.

Only in hospitals that are being extended or in instances of new construction, is it possible to plan ideal facilities. Thus it is apparent, when considering location, that every hospital faces an individual problem. In general, it may be stated that a department of physical medicine should be bright, airy and convenient for the out-patient as well as for the patient domiciled in the institution. Access to water, electric power, sewers, elevators, exits and the various clinical departments must be most carefully studied.

The size of the department is an individual problem. If properly organized and operated, the department can be expected to expand beyond early and modest beginnings. This should be kept in mind. Necessarily, the size of the department varies considerably and is intimately bound up with the volume of work and the particular type of service that is in greatest demand in the particular institution.

Every Institution Presents a Special Problem

Varying types of institutions and communities present diverse problems of organization and equipment. The sanatorium will stress facilities for light therapy; the institution that houses a large percentage of mental cases or nervous disorders will demand full facilities for the administration of hydrotherapeutic measures. Similarly, but to a lesser degree, every institution presents a special problem that must be solved by the preliminary investigation; otherwise costly mistakes will be inevitable.

In all probability the actual layout of the department will be governed largely by considerations of economy, the type of patient and the nature of the work that is to predominate. In those institutions in which the industrial case predominates, or in which the volume of work is limited, a single common room may be all that is required. When privacy is required with such arrangement, the use of screens or suspended curtains is the most convenient arrangement. The provision of fixed overhead rods for this purpose is desirable. With this simple arrangement, further privacy can be provided economically and at any time by the simple addition of cubicles.

The average cubicle measures approximately 6 by 8 feet; an absolute minimum in size should be 5½ by 6½ feet. If the cubicle is to be used as a dressing room, and dressing room accommodation is essential, the former size is much to be preferred. The walls, approximately 7 feet high, are made of steel or wall board. The front is closed by suitable curtains.

Adequate Artificial Illumination Is Necessary

For the protection of the attendants, and to diminish noise, the floor of the physical therapy department should be covered with heavy linoleum. Walls should be decorated with light colors, for light walls not only add to the attractiveness of the department but serve to reflect the available light. The provision of outside windows, ample to flood the department with light, is an important consideration when planning architectural details. For use on cloudy days or during the dark months of the year, an adequate artificial illuminating system is a necessity. All cubicles should be well lighted, but lights should be so placed that they do not annoy patients lying supine in the cubicles.

In the case of new construction, the necessity for the careful planning of the water supply, light, sewage disposal, power and signal systems needs to be appreciated; once these installations are enclosed, alternations can be made only with the greatest difficulty. Water mains and radiators do not interfere with later alterations if they are placed on outside or permanent walls. With modern insulation there should be no danger from frost. In spite of the many disadvantages associated with the adaptation of old quarters to new purposes, it is quite possible, by means of modern architectural devices and arrangements, to conceal to a large extent the unsightly appearance sometimes presented by these alterations. The physician responsible for the department should be in a position to discuss details with the architect in advance of construction or alteration. A common experience has been to find that the various service outlets provided are entirely inadequate to cope with the demands made upon them. Another common mistake is failure to estimate correctly the amperage requirement so that rewiring is necessitated. The development of hydrotherapeutic measures in the department is often prohibited because

of the lack of adequate plumbing facilities. Careful preliminary planning will minimize these unfortunate mistakes.

Physical therapy can be subdivided into several major departments. The more important of these are radiotherapy, electrotherapy, phototherapy, actinotherapy, mechanotherapy, massage and hydrotherapy. The particular equipment to be selected by the director will depend upon the predominant type of service that the department is called upon to render. In some physical therapy departments one finds one or more of these major subdivisions being practiced, in whole or in part, to the practical exclusion of all the others. However useful this limited procedure may be in certain selected cases, it is not to be accepted as other than the practice of a small corner in the field of physical therapy, and in general hospitals, in fairness to the patients that are to be served, there should not be too much limitation in the variety of apparatus installed; each modality has its own specific use.

The practice of radiotherapy necessitates the possession of radium and both superficial and deep x-ray facilities. Only in the larger centers is there likely to be a strong demand for these provisions, as much of this work centers around the subject of malignancy. It is not to be overlooked, however, that these treatment facilities are of inestimable value in the fields of dermatology, gynecology, and also in many other fields of disease.

The Efficient Hydrotherapy Department

In the field of actinotherapy and phototherapy, use is made of various types of quartz lamps, carbon arc lamps, infra-red generators, high powered electric lamps with reflectors and also various sizes and groupings of lamps in the form of cabinets and bakers. These are used for producing general tonic effects, elimination, sedation or as a preliminary preparation for the exhibition of massage or hydrotherapeutic procedure.

Under electrotherapy are listed diathermy and static, galvanic, sinusoidal and faradic currents. These are used for the production of heat in the deeper tissues or for the production of various nerve and muscle responses.

Hydrotherapy involves the scientific application of water in various states to meet the many and varied indications imposed by disease processes. The efficient hydrotherapy department has facilities not only for local and general baths, but it also is equipped for showers and douches utilizing water under varying degrees of pressure and temperature.

The practice of mechanotherapy and remedial gymnastics necessitates the installation of various mechanical contrivances and a miniature gymnasium. The application of these helpful agencies permits the patient to take an active personal part in hastening recovery from the residual disabilities imposed by injury and disease.

Quite possibly the most important subdivision of physical therapy is that of massage. An efficient masseuse, properly supported by the necessary equipment, is capable of making an invaluable contribution to the work of the department and becomes an indispensable aid in those departments large enough to maintain a masseuse.

Equipment Will Cost from $2,200 to $3,000

The following equipment may be considered as a typical primary installation.

1 diathermy machine, complete with foil, and on an easily movable stand
1 sine wave cum galvanic, with muscle testing electrodes on a movable stand
1 quartz lamp, air cooled
1 1,000-watt heat lamp
1 whirlpool bath, hand and arm
1 whirlpool bath, foot and leg
1 bicycle exerciser
1 shoulder wheel
2 treatment tables, complete with special mattresses and sheets
Sundry accessories

It will be necessary to add to or subtract from the foregoing equipment as the particular situation demands. The cost of such installation will vary from $2,200 to $3,000. This cost can be reduced to some degree by employing home construction for certain pieces. Certain apparatus has not been included as the hospital carpenter can provide these at the request of the director. These items consist mainly of apparatus that facilitates the performance of various types of corrective exercise, such as finger ladders and wrist resistance rollers.

Finally, it is important to emphasize the point that equipment purchases should be made through well established firms that are quite prepared to service the installations made. In recent years there has been an increasing tendency for intensive salesmanship to impress upon both the profession and the hospitals the priceless merit of certain types of physical therapy apparatus. Later it frequently is found that these costly purchases are practically useless. This experience suggests the necessity of giving the most serious consideration to the purchase of new equipment. The Council on Physical Therapy of the American Medical Association has been responsible for excellent work in promoting the standardization of physical therapy equipment.

Editorials

The Nurses' Registry

THE conduct of a nurses' registry by the voluntary hospital is not entirely devoid of embarrassing difficulties. Such a registry has the twofold purpose of accommodating members of the visiting staff by promptly securing nurses and of attempting to provide employment for graduates of the hospital school.

Frequently no service fee is required of the registrant. Occasionally the hospital registry sets a charge for this service. Such an instance recently aroused sharp criticism from the nursing field. Registries organized by the nurses themselves are usually not conducted for profit. When registries are under lay offices, however, this is not the case.

It is doubtful whether any code of professional ethics is strained when the members of an alumni association choose to conduct their own registry and to use the profit realized thereby to meet some need of the hospital that trained them. If coercion were exercised by the hospital, the practice could not, of course, be commended. But in the final analysis, the wishes of the nurses affected will largely determine the correctness and the continuance of the procedure.

What Is a Specialist?

DOCTORS are permitted to practice medicine only after a thorough didactic and practical training. They generally emerge from their hospital services capable of treating the usual type of acute and chronic illness encountered in community practice.

Tiring of the arduous demands of general medicine or discouraged by the paucity of their rewards, many doctors decide to specialize. Often this metamorphosis amounts to little more than an announcement that the transformation has taken place. There is no legal requirement that directs otherwise. The public is wholly ignorant of the training necessary to the competent laryngologist, surgeon or neurologist. It is inclined to take the physician's word that he is no longer a general practitioner.

Much to the credit of leaders in specialized medicine and of cooperating national medical and hospital organizations, an advisory board of medical specialties has been formed to coordinate the activities of the several official groups already endeavoring to standardize the postgraduate education of the specialist. Such a board is destined to exert a helpful influence on medical postgraduate training facilities in this country and abroad. If the public can be educated to the fact that credentials as to special training and skill are almost as necessary to the specialist as the medical degree is to the physician, it will certainly be less gullible in accepting at face value the pronouncement of the pretender that he possesses unusual and special medical or surgical ability.

It is the duty of the hospital to allow only those known to be worthy of the designation to practice as specialists within its walls. The MODERN HOSPITAL highly commends this effort to protect the interests of the sick and to bring some order out of the present chaos produced by the multiplicity of self-styled specialists.

Neglect of the Chronically Ill

A COMMITTEE on chronic illness has recently been formed in New York City. On its roster are to be found the names of many persons long identified with hospital and social work.

The need for arousing interest in the welfare of the chronically ill must be recognized as paramount. The great wonder is that for so long there has been such widespread apathy in regard to these sufferers. This group is not small. One out of every two hundred persons is said to be handicapped by chronic illness, although there is little agreement as to the meaning of this term. Because there are so many degrees of chronicity, no accurate census of the number of persons so afflicted can be made. Many types of pathology produce chronic disability. Diseases of the heart and blood vessels, cancer, chronic joint and neurologic conditions, in about the order named, disable patients for long periods.

The problem of caring for the chronic patient presents some interesting hospital applications. Often as many as one out of every ten acute hospital beds is filled by patients who are chronically ill, a condition that results in delay in turnover and much unnecessary expense to the institution. In many localities few institutional beds are provided for the chronic, the majority being maintained at home where they add greatly to the physical and financial burdens there. To the physician the chronic patient often presents little of dramatic or even of scientific interest. It is often concluded after a short period of study by the staff doctor of the acute hospital that no more can be done to alleviate the patient's condition and he is discharged to his home to be more or less forgotten.

The acute hospital can do much to prevent chronicity by promptly and skillfully relieving surgical ailments and by properly treating such known causes of heart and joint disease as rheumatism, chorea, tonsillitis and other infections of a streptococcic nature. It is hoped that other cities will emulate the example set by New York and endeavor to bring succor to these long neglected patients.

William H. Welch, M.D.

THE passing of a truly great physician should not go unnoticed in the columns of any journal interested in medicine whether it be general or institutional. The enlarged concepts of the cause and results of disease brought about by the efforts of such a man enable the hospital better to serve its clientele.

William H. Welch, A.B., M.D., long preeminent in the field of pathology, was equally gifted in his ability to organize and administer. He founded and became the director of the school of hygiene and public health at Johns Hopkins University in 1916, and even at the age of three score and fifteen he organized the school of history of medicine at that university. His philosophy of life is one that should actuate every hospital worker: "The rewards of success in medicine lie not in money; they lie in the consciousness of service, in the relief of suffering and in the prevention and cure of disease." Such a creed is not that of any profession or group. It is as wide as humanity itself.

Honored as was Doctor Welch by many learned societies, his accomplishments were such that he still more greatly honored himself. The medical world grieves at the loss of a leader. The MODERN HOSPITAL properly shares in this grief.

White Piqué Neckties

HERE is a story of hospital publicity of a type that should not be disregarded. It is a human interest story minus the time-worn appeal of crippled "kiddies" and all the truck on which the public is so thoroughly fed up. It has to do with white piqué neckties.

"Just about the first sight some 8,000 babies have seen in this world is Dr. Joseph B. DeLee's white piqué ties," says the gossip column of a Chicago newspaper. "He has worn them for forty years and makes enough of a point about it to have them specially made for him. One time he bought a whole bolt of fine French piqué and had it made up into ties. Only recently he bought 15 yards. That made about 100 ties."

The paper then goes on to tell of some celebrated babies born at Chicago Lying-In Hospital, notably Paulina Longworth who opened her eyes to one of the famous white piqué ties. But, it says, of 8,000 babies so greeted, 25 per cent are "free" babies with no charge for hospital service. For this reason, it might be well for the public to support the benefit being given on a certain Friday evening.

It's the human touch that counts. Certainly never planned by the hospital, this little publicity story makes the hospital seem less of an institution and more of a homelike place in which to have babies. The reader can but reason thus: Doctor DeLee is a human sort of fellow, else he would not wear ties of the old-fashioned family doctor type. The Chicago Lying-In Hospital is really an extension of the personality of this famous physician. If Dr. DeLee is human, ergo the hospital is human—a fine place for philanthropic and maternity purposes.

The Meaning of Medical Economics

QUESTIONS relating to the economic status of hospitals, physicians and certainly of individuals are being more or less commonly discussed in practically every community in this country.

Hospitals are endeavoring to increase their incomes in order to stem the financial tide that threatens to overwhelm them. Physicians, sometimes calmly and frequently clamorously, are considering reasons underlying marked decreases in their personal incomes. The public is endeavoring to secure medical care at the least possible expenditure. Big business is debating methods by which employees who become ill may be most advantageously and promptly returned to service. Hitherto useful statistics relative to morbidity and to the percentage of persons who, when ill, desire hospital care are now unreliable. Committees on economics are being appointed by medical societies and hospital boards. All is in turmoil. Much destructive criticism is being offered but there are few workable plans.

Many sins of omission and commission are being committed in the name of medical economics. Hospitals have reduced salaries until faithful workers receive but a pittance for their labors. Every economy has been practiced. Some of these attempts at saving have savored of pettiness. The charitable nature of the hospital's work in no measure justifies the adoption of questionable means to gain these ends. To accept supplies with no expectancy of an ability to pay for them is dishonest. To threaten discontinuance of patronage in order to secure discounts or donations is mean, unjustifi-

able and unworthy of the best traditions of the hospital. The institutional code of fair dealing differs in no respect from that of the individual. The MODERN HOSPITAL has always spoken against the granting to or assumption by the hospital of any degree of special privilege. If ever acuteness of vision and calmness of judgment were needed, it is now. In the last analysis fair play to the public will bring ample financial and spiritual recompense to the hospital. Without the confidence of the public little can be accomplished.

Medical economics is not a slogan to roll easily from the tongue as explanatory of actions of doubtful wisdom or ethics. Nor does a temporary decline in hospital earnings justify unfairness to the public, to the doctor or to the employees. If wrongs have been done employees, they should be righted now. If ideals and traditions have been forgotten, a readjustment of spiritual and material values should be made. Now is the time to improve service, to widen and strengthen community contacts and confidence.

Misplaced Emphasis

WE ARE said to be living in an age characterized by changing methods and manners. The methods employed to reach an objective today of a certainty differ from those of but a few short months or years ago. This may be for the best interest of all. Manners appear to be deteriorating. Acrimony and suspicion are traits manifested in every walk of life.

The hospital offers no exception. A discussion on institutional economics is almost certain to bring to the fore someone who believes himself aggrieved. Group hospitalization, for example, is adjudged unwise because it is unfair to the physician. To charge a flat fee for tonsil cases is also pronounced unethical because it constitutes contract practice. And yet contract practice can only be rightfully denominated as a social wrong if it is not to the best interests of the ailing community. It appears that no question can be calmly studied that touches the income of the individual or the institution. The pocketbook nerve is a sensitive one which if irritated provokes an almost immediate protective response.

If in every discussion the debate could be largely concerned with learning what is best for the sick the ingress of personalities would be much less frequent. The doctor and the hospital play but relatively minor parts in the tragedy of sickness and death. No plan which is not to the best interests of patients generally can succeed. No policy founded solely on this hypothesis is likely to fail.

The Trustee as a Superintendent

BECAUSE many erstwhile prosperous hospital trustees are now unemployed, a decided trend has developed throughout the institutional field toward the transformation of good trustees into mediocre hospital superintendents. The president of the board or its secretary is moved to offer himself to his colleagues as a successor to a deposed administrator.

Usually this practice involves a supposed economy to the hospital. Frequently a competent superintendent is relieved and a trustee, engaged at a smaller salary, assumes his duties with the promise of a sound business administration with economy as its watchword. While a highly recompensed and skilled administrator is often, in the long run, a good investment, a well meaning, low salaried executive can without much active effort quickly waste more money than the amount saved by reducing the executive's salary.

The policy of substituting a trustee for a trained superintendent is a bad one. A good woolen manufacturer, banker, contractor or physician may make an incompetent and bungling hospital superintendent. It is not always advisable to relieve a good executive when economy is needed. To do so is often not economy.

How Are Your Cat's Whiskers?

For the benefit of those who may not know what a cat's whiskers are for, we explain that they serve a primary purpose of telling the cat whether the hole he puts his head into is large enough to permit him to get through. —EDITOR'S NOTE.

THE executive secretary of a great foundation once said that the prime requirements for a successful hospital executive were only two: first, to make sure that his cat's whiskers are kept constantly in good condition, and second, to make sure that he keeps the Kingdom of God in his heart.

More recently a leading educator speaking before a group about the entrance requirements for students in hospital administration said they were just two: first, native intelligence, and second, basic honesty and morality in the truest sense.

Putting these two sayings together one might assume that given native intelligence to start with, one would keep his cat's whiskers in good condition; and given basic honesty and morality, he would be able to keep the Kingdom of God in his heart.

This seems like a simple formula for success, not only for a hospital executive but also for success in almost any other field.

The Problem of the Month

Is Collective Purchasing Desirable for Hospitals?

WHAT do administrators and other persons interested in hospital buying think of collective purchasing? There are certain familiar arguments on both sides of the question. Those who favor collective purchasing cite the lower prices to be secured through larger purchases; further price reductions through lowered sales and service costs; better selection of materials through carefully formulated specifications; saving of time by having purchases made through one person instead of many, and establishment of standards of quality and service on a scientific basis.

It is argued against the plan that it tends to emphasize price at the expense of quality; that such a system is likely to be cumbersome and slow and therefore expensive; that overemphasis on standardized products may hamper the adoption of improved products, and that group buying is unfair to purveyors who have carried hospitals through generous extension of credit.

What is your opinion?

Winford H. Smith, M.D., Director, Johns Hopkins Hospital, Baltimore:

"It is my definite opinion that collective purchasing by hospitals is desirable. The reasons for this are obvious. Better prices should be secured through larger purchases. By reduction of sales and service costs, by prompt payment of bills and by concentration on a few instead of many purchasers, it should be possible for the seller to give better prices to central purchasing agencies.

"In a well organized central purchasing bureau carefully formulated specifications ensure a better selection of materials purchased. Standards of quality and of service are much more likely to be established on a scientific basis in a central purchasing bureau.

"Collective purchasing should be of particular advantage to smaller institutions that cannot afford experienced purchasing agents and in which the superintendents are not experienced buyers.

"There is every reason to believe that collective purchasing can be and should be just as valuable for hospitals as it is in other forms of business where it has been used successfully."

Joseph Turner, M.D., Director, Mount Sinai Hospital, New York City:

"No fault can be found with the principle of cooperation in buying. Indeed, there are several notable examples of cooperative buying by hospitals that seem to have tested this method successfully over a period of years. Nevertheless, the plan, admirable in its concept, encounters certain obstacles in its practical application, not the least of which is the fact that hospitals are so notoriously and so happily unstandardized. As a matter of fact, obstacles to more universal application of the plan are such that executives are not of one mind as to its ultimate value, and the favorable claims of its protagonists are equaled only by the disappointing experiences of others who have tried it.

"Within limitations and under certain conditions, cooperative buying should show a saving. Savings, however, as claimed for cooperative buying by a group buyer are not so easily estimated, for it is quite impossible for an accounting department to show in dollars and cents the intangible loss that the hospital suffers in the absence of the personal interest and service that follow direct contact between consumer and vendor. The elimination of this contact cannot be regarded in any sense as a gain merely because of any time supposedly saved to the hospital buyer. The mutual exchange of information and ideas ceases and an important factor in the continuous education of the individual hospital buyer is dried up at its source.

"All cooperative measures, however, do not interfere with this contact as some of the service consists merely of quotations and sources of sup-

ply, leaving it entirely to the individual members of the group to decide whether they will deal directly with the recommended purveyor or with one of their own choosing, in either case retaining the buyer and seller contact.

"Some of the larger hospitals whose buying power, credit, financial rating and other factors are all favorable to good buying have not been able to convince themselves that any real saving of money, service or time follows in the wake of such cooperative affiliation. Other hospitals not so favorably situated in buying power might readily see a number of advantages, enough at least to outweigh its obvious disadvantages. Our investigations and experiences have not led us to continue with the plan."

W. L. Babcock, M.D., Director, Grace Hospital, Detroit:

"After an experience of twenty-two years with a well organized nonprofit central purchasing bureau, my answer is decidedly, yes. The Grace Hospital has paid its annual dues in the Hospital Bureau of Standards and Supplies in certain years through savings on the purchase of one commodity, namely, tax-free alcohol. That central purchasing by a well managed agency, governed by the hospitals, is a benefit to the whole hospital field is evidenced by the fact that the membership in this bureau numbers more than 150 hospitals.

"Any agency whose purchasing power will permit contracts for 5,000,000 yards of gauze, several tons of cotton and comparable quantities of other commodities, is in a position to obtain better prices, better service and a more constant standard of quality than are individual hospitals. The manufacturer or contractor, by means of these large contracts, has a decided advantage in staggering and budgeting production, with lower costs of manufacture.

"An element not commonly presented in favor of centralized purchasing resides in the constant opportunity for the hospital purchasing agent to ascertain prices and specifications on short notice, from one source rather than from several. As an indirect benefit, this is incalculable in dollars and cents. It has saved many hours and days of a purchasing agent's time.

"Unquestionably the hospitals in the bureau have in many instances had their standards decidedly elevated. The facilities and opportunities of the central bureau for laboratory analysis and commercial survey of products are beyond the ken of a single hospital. On more than one occasion, products formerly used have been shown, after analysis and study by the bureau, to be worthless.

"In a laboratory analysis of surgical soaps made by the bureau, the cost of these soaps to the purchaser, calculated on effective content, ranged from 5⅝ cents to 13¾ cents per pound on price offerings that had a variation of less than 1½ cents per pound. In other words, the purchaser of the cheapest surgical soap, on account of impurities, substitution and dilution, was actually paying 13¾ cents, on the basis of effective soap performance, in comparison with higher grades.

"There are a number of other arguments in favor of collective purchasing too well known to emphasize. It can be denied that the tendency of collective purchasing is to emphasize price at the expense of quality, or that emphasis on standards may hamper the adoption of certain products. Properly adjusted agreements or contracts should not lessen profit of manufacture which is naturally increased by grouping of orders and budgeting production.

"A discussion of cooperative buying for hospitals, with detailed statement of items and costs, may be found in the transactions of the American Hospital Association of 1925. The statements in that discussion are true today, with definite reemphasis in the light of an additional nine years' experience."

Herman Smith, M.D., Superintendent, Michael Reese Hospital, Chicago:

"This is a question that cannot be answered by a categorical yes or no.

"It seems evident that collective purchasing should result in lower prices, particularly under the present NRA codes which in many cases call for discounts graded upon the size of orders. There are, however, a number of things other than lowered prices that must be taken into consideration.

"First, there is the question of community tradition. In certain communities it is felt that the hospital, being an integral part of the community, should purchase locally because hospital support is local. In these instances foreign purchases under collective purchasing could have no place in the picture.

"The second question to be considered is that of financial responsibility. If hospitals group together for collective purchasing, all of them are presumably equally responsible for the items purchased, and this in certain instances may prove a stumbling block.

"I believe that collective purchasing is most desirable when a community fund supports a group of hospitals, or when all hospitals in a group can make arrangements so that the financial responsibility of each is clearly defined.

"I do not believe that any appreciable number of additional groups should be set up for collective purchasing. The overhead on a series of purchasing groups is excessive. The purchasing councils in New York and Cleveland—two groups that have demonstrated their ability—could, I believe, be easily expanded to take care of the needs of practically the whole country with the possible exception of the west coast. Individual hospitals in many instances may correctly point to the fact that their prices are as low as the prices obtained by these two councils, but I do not believe that prices paid by the general run of hospitals throughout the country are as favorable as those obtained by these two groups.

"In summarizing, I believe group purchasing by hospitals is desirable, but I do not believe it is desirable to form many, if any, additional purchasing groups throughout the country. Hospitals interested in collective purchasing can obtain a rapid survey of the advantages and disadvantages of group purchasing by joining for a trial period either the New York or the Cleveland purchasing group."

Howard S. Cullman, President,
Beekman Street Hospital, New York City:

"Judging by a number of years of first-hand experience, I feel that collective purchasing is not desirable for private hospitals. Experiments with group buying have demonstrated that the theoretic advantages and economies of collective purchasing are outbalanced by certain practical and important difficulties.

"In the first place, the personal equation, which is completely lost in a collective purchasing scheme, has far more than a sentimental value. The directors of a hospital, through personal or business contacts, are frequently able to effect great economies by appealing to manufacturers and others on a philanthropic basis. Often they can secure certain types of supplies and equipment as outright donations. While such a procedure may not appear altogether businesslike, it often results in great economies.

"Second, the element of politics in buying is far better controlled in a single and well supervised unit than under a collective plan. A large organization must be constantly on guard against any sort of illicit influence over its purchasing agents. Such a check can be far better maintained in a decentralized buying scheme.

"Third, collective purchasing has a tendency to increase costs. The credit of a group can never exceed that of its weakest member. The financially sound hospital therefore loses the advantage that it should rightfully enjoy because of its strong credit position.

"Fourth, there are definite advantages to direct contact with the market which are lost in a group buying plan. Contact with manufacturers or their agents is an excellent practical device for keeping abreast of new developments in drugs and equipment. Hospitals have found that quicker deliveries can be secured and greater cooperation assured in emergencies from manufacturers with whom they have been dealing directly.

"For the reasons outlined, I have found collective buying unsuccessful. I am fully aware that group buying agencies have performed many valuable services in the hospital field. They have done much to standardize prices on certain staple articles and to systematize and clarify specifications. Nonetheless, the problem of ministering to the sick depends, even in a highly organized hospital, upon close and personal supervision of sympathetic individuals. No impersonal mechanism can effectively replace this essential human factor even in the apparently routine matter of purchasing supplies.

"I have, in these conclusions, had in mind only the particular problems of private hospitals. In a large community, it seems to me impossible for a centralized agency adequately to represent the diversified needs of a hundred or more separate institutions. For state or municipal hospitals, on the other hand, which function under unified control, collective buying appears a desirable solution of a totally different administrative problem."

Warren W. Irwin, Purchasing Agent,
Strong Memorial Hospital, Rochester, N. Y.:

"The success or failure of any collective or cooperative purchasing agency depends upon the degree of cooperation between the organizations represented in the buying plan.

"In the hospital field, collective purchasing has been tried with success. There are several organizations in the United States that have memberships ranging from six or eight hospitals to larger ones of from fifty to 100 hospitals. These organizations have been able to make most advantageous contracts by which member hospitals can benefit.

"Strong Memorial Hospital belongs to such an organization and has found it profitable not only financially but from the standpoint of having up-to-date information on standards and new developments available on short notice with little effort on the part of the personnel of the hospital.

"I am of the opinion that collective buying is desirable in hospitals, but with certain limitations. I do not think that the entire purchasing of a hos-

pital can be turned over to a central agency. Obviously many items used by a hospital can be purchased only in small quantities. Others must be purchased for some special emergency where time is a factor. Still others cannot be purchased advantageously due to inability to agree on standards and specifications.

"Human likes and dislikes must enter into any discussion of standards and specifications, but if any group of hospitals will enter into whole-hearted cooperation on their buying problems and will agree on specifications for most of the important items used, I am sure that they will find that collective or cooperative purchasing on those items is not only desirable but profitable."

Wheeler Sammons, Managing Director, Drug Institute of America:

"The consensus of manufacturing members of the Drug Institute is that, on the whole, collective purchasing holds no particular advantage for hospitals. Most large and reliable manufacturers of pharmaceuticals offer no better prices to collective purchasers than they do to individual hospitals.

"In the first place, they regard the hospital as a social institution entitled to the lowest prices they can possibly offer. Manufacturers are especially sympathetic toward the small hospital, of 50 to 75 beds, that must buy in extremely small quantities because of lack of funds. The one advantage manufacturers might expect from collective purchasing is prompt payment of bills.

"Collective purchasing loses all its effectiveness unless individual hospitals place their orders intelligently. The saving made by buying ten pounds of Epsom salts direct from the manufacturer does not offset the expense of the postage. It would be much simpler for the hospital to order direct through a local wholesaler or even through a retail pharmacist. If individual hospitals ordered intelligently, however, there would be no need for collective purchasing centers.

"Collective purchasing might be successful in metropolitan centers where large hospitals buy in large quantities, but in small towns where there are a few small and invariably poor hospitals that buy in small quantities, it is the majority opinion of manufacturers that these hospitals would not be sufficiently repaid for the sum they are assessed by the purchasing center.

"One large purchasing center is cited by several manufacturers as having been especially successful. It is headed by a highly efficient buyer who is intent on fine quality as well as on low price. This center, which includes about sixteen hospitals in its membership, takes care of all the needs of its various members—food, beds, bedding, glassware, china, pharmaceuticals and other supplies. But the expense of supporting this center, which must be $30,000, perhaps offsets the saving made.

"All manufacturers agree that it is the tendency of collective purchasing to emphasize price at the expense of quality. Purchasing agents often purchase large quantities of goods simply because they can get an extremely good buy, and in many instances hospitals receiving such merchandise complain bitterly of poor quality. Hospitals complain also because they are obliged to take in an unnecessarily large stock in order to secure the advantage of a quantity price. In many instances the central purchasing offices do not understand the varying needs of the different hospitals for whom they are purchasing, and arbitrarily set a specification for quality that is not satisfactory to many of the member hospitals.

"When buying is done through a purchasing center, salesmen are inclined to contact only the central purchasing agent and the individual hospital suffers because there is no contact between the manufacturer and the hospital. Salesmen have considerable difficulty in introducing new products to hospitals when a central purchasing system is employed. The central purchasing agent in most instances is not qualified to accept or reject such products. To get improved products introduced requires a tremendous amount of missionary work with each agency in the buying group. Emergency service is facilitated by direct contacts with the actual source of supply.

"Collective purchasing by hospitals cannot be a time-saving procedure. In fact, central purchasing offices often have complex systems that result in delayed delivery."

Hospital Exhibitors' Association:

"Collective purchasing by hospitals is most decidedly not satisfactory for specialized equipment or purely professional, surgical or nursing supplies, because:

"1. It destroys the individual identity of each institution.

"2. Each institution has its own peculiar set-up which is not considered in cooperative buying.

"3. Each institution can buy to much better advantage individually, on the basis of price, quality and particularly service.

"4. It prevents individual buying contact.

"5. Centralized buying emphasizes price only.

"6. It tends to minimize initiative for research and development by manufacturers and purveyors.

"There may be certain common commodities to which these arguments do not apply."

Maintenance, Operation and Equipment

Conducted by JOHN C. DINSMORE *and* DR. R. C. BUERKI

New Oxygen Tents Are Electrically Air Conditioned

By F. W. HARTMAN, M.D.
Department of Laboratories, Henry Ford Hospital, Detroit

THROUGH the cooperation of physicians and manufacturers, apparatus for the application of oxygen therapy has been brought to a high degree of perfection. Yet serious difficulties are still encountered.

"The atmosphere (of the tent) should be kept cool and relatively dry," writes William Thalhimer in the February, 1932, issue of The MODERN HOSPITAL. "The control of these two factors is the most difficult problem with most of the present day portable types of oxygen therapy apparatus. . . . It is not uncommon to find in some types of apparatus that the temperature rises to 85 or 90° F., and the relative humidity to 70 or 80 per cent. A good combination is about 70°, with 40 per cent relative humidity."

Need for Radical Changes Recognized

With these difficulties in mind, a study of the problem was recently undertaken. It soon became apparent that with ice cooling and ventilation alone little progress toward uniform temperature and humidity control at the proper levels could be made. It was recognized that radical changes must be made in order to obtain improvement. As a result of the study, a new canopy, allowing full visibility for both patient and attendants, has been evolved, while cooling and dehumidifying the tent air are accomplished by electric refrigeration thermostatically controlled.

The canopy is a half cylinder 36 inches long and 36 inches wide at the base, composed of 60-gauge cellophane. Instead of depending upon height to allow for elevating the head of the bed, the canopy is attached at either end to a bracket which in turn may be rotated with the head of the bed as it is raised. This type of suspension allows the canopy to be moved up and down easily, permits rotation with the head of the bed from horizontal to vertical position, and rotation of the canopy in the bracket to facilitate examination of the patient or removal of the tent from over the patient. The skirt of the tent is made full and long of rubberized cloth or of sponge rubber, which affords better insulation than rubberized cloth and stretches rather than tears when strained.

The amount of cooling necessary was calculated directly from the ice consumption of a number of tents now in common use. Special cooling apparatus was then designed consisting of coiled finned tubing. These coils have been utilized in two different ways. In Design 1, shown in the accompanying illustration, they are incorporated in an insulated container (A) housed with the compressor unit (B), while in Design 2 they are incorporated in the canopy of the tent within a copper flue (M 2) and connected to the compressor (W) unit by flexible connections (W 2).

Design 1 is more portable and hence more desirable for use in small hospitals and homes where portability is of first importance. This type can also be used for simple bed cooling.

Requires Small Floor Space

Design 2 is especially suited to hospital use because the compressor unit is mounted low and may be placed beneath the bed where it occupies a minimum amount of floor space and also because the cooling and circulation are contained within the canopy, thus avoiding leakage of oxygen.

For maintaining a satisfactory reserve under all weather and climatic conditions, a compressor weighing from 100 to 125 pounds and using a 1/4 to 1/3 horse power motor is used. The compressor is of relatively low speed type with a large condenser surface so that the fan noise can be readily eliminated. The unit is designed for use of refrigerant gas F 12, since this is nonodorous, nontoxic (unless burned), and nonexplosive.

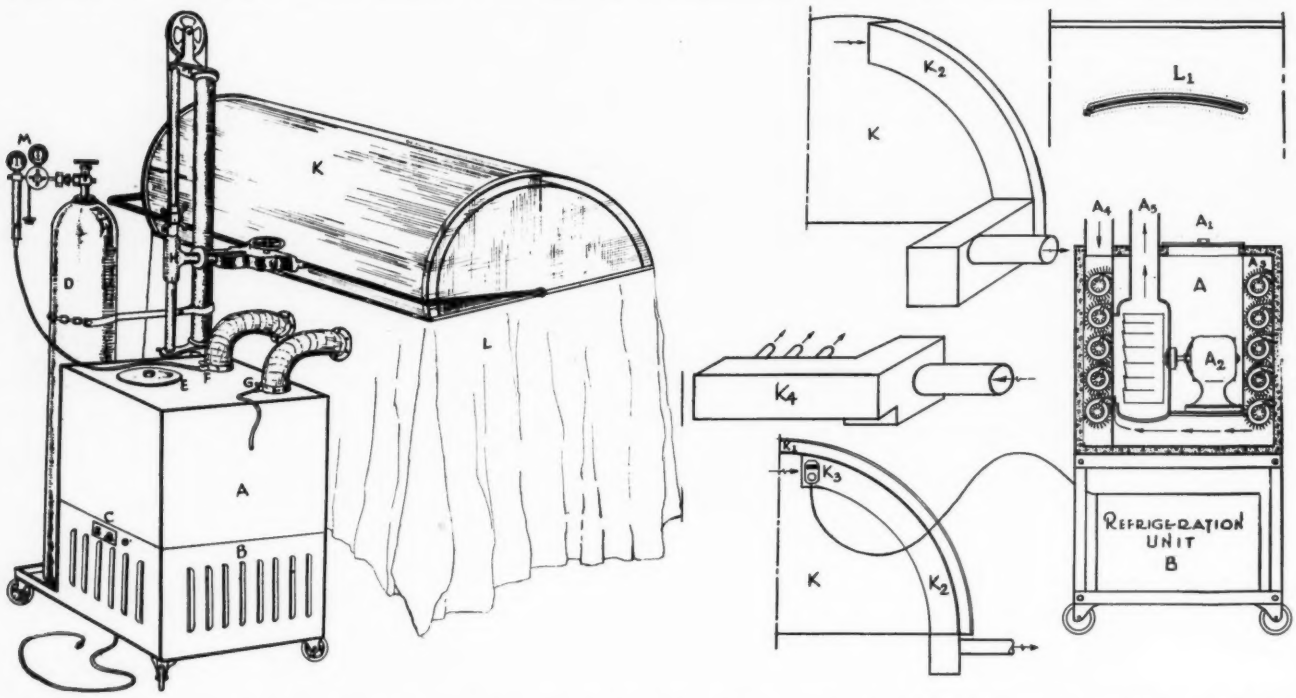
The compressor units in each design are con-

MAINTENANCE, OPERATION AND EQUIPMENT

trolled by a thermostat hung within the tent. This is equipped with a mercury tube within which the make and break of the current occurs so that oxygen rich atmosphere is not exposed to the spark. It also carries a thermometer, and the temperature is kept within two degrees of the indicated setting at all times. A temperature range of from 55 to 80° F. is obtainable.

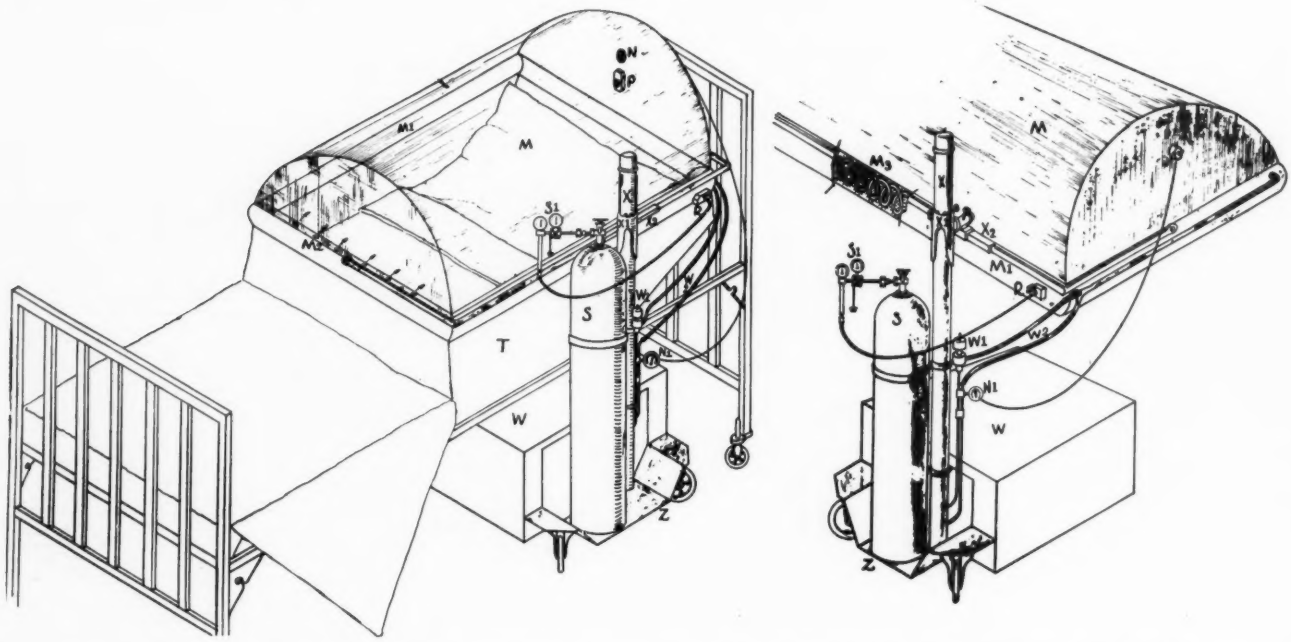
Operation of both designs is comparatively simple because refrigeration and dehumidification are automatic and comparable with that in the household electric refrigerator. The equipment is simply plugged into a wall socket. Temperature and humidity within the tent will be reduced to the desired level in from 15 to 20 minutes if the tent is placed over the patient at once, but if time and circumstances permit it is preferable to run the machine five to ten minutes before placing the tent over the patient so that the coils may become chilled. Thus, when the tent is placed over the patient desired conditions are obtained almost at once. The oxygen is also started when the current is turned on so the tent air will contain a high percentage of oxygen when placed over the patient. In placing the canopy over the patient the same is first raised to its highest position and rotated to correspond with the angle of the head of the bed. When over the patient, the canopy is drawn down into position, usually twelve to fifteen inches above the mattress. The skirt is carefully tucked under the mattress, the corners being first folded and then securely tucked under. The upper half of the mattress should be covered by rubberized cloth in order to prevent loss of oxygen through the mattress. The rheostat on the circulating fan is adjusted so that good ventilation and cooling are obtained but strong drafts on the patient and unnecessary fan noise are avoided. More humidity is removed with slower circulation over the coils. Hence, on days when humidity is high, it may be desirable to operate the fan more slowly than on average days. In both designs the current of cool dehumidified air is directed over the patient rather than on him.

The refrigeration unit will operate only from 50 to 75 per cent of the time, depending upon temperature and humidity in the room. This intermittent operation, coupled with the circulation



Design 1, Drawings 1 and 2, show the complete tent unit with oxygen tank. A—insulated cooling coils; A 1—hand hole for removal of or oiling of motor; A 2—motor with blower attached; A 3—coiled and finned cooling coils; A 4—inlet from tent; A5—outlet for cooled dehumidified air; B—refrigeration unit; C—electric switch opening and closing line leading to wall plug; D—oxygen cylinder; F—stopcock and connection to oxygen flow-meter; G—stopcock on inlet for sampling tent air; H—counterweighted casting carrying tent canopy; J—swivel casting and bracket carrying tent canopy; K—dome shaped canopy of 60-gauge cellophane; K 1—support for cellophane of canopy; K 2—aluminum pipe carrying warm air from tent back to cooling and dehumidifying coils; K 3—mercury tube thermostat with connection controlling the refrigerator unit; K 4—aluminum pipe for distributing cooled dehumidified air at foot of tent canopy; L—skirt of tent 36 inches wide; L 1—zipper closed opening for attending small needs of patient.

MAINTENANCE, OPERATION AND EQUIPMENT



Design 2, Drawings 3 and 4—No. 3 shows complete oxygen tent with refrigeration unit, oxygen cylinder and bed; M —dome shaped tent canopy of 60-gauge cellophane; M 1—insulated copper flue which contains the coiled and finned cooling coils M 3; M 2—six half-inch holes from which the cooled dehumidified air returns to the tent from the cooling coils; N—small blower which circulates the tent air over the cooling coils; N 1—rheostat controlling blower; P—mercury tube thermostat controlling the tent temperature by cutting in or cutting out the refrigeration unit; R—stopcock for oxygen inlet to tent; S—oxygen cylinder; S 1—oxygen gauge and flow-meter; T—skirt of tent 36 inches wide of rubberized cloth or sponge rubber; W—refrigerator unit in low housing which goes under bed; W 1—expansion valve controlling the refrigeration of the cooling coils; W 2—flexible connections between refrigeration unit and coils allowing free movement of tent canopy; X—upright carrying tent casting; X 1—movable counterweighted casting carrying tent bracket X 2 and canopy; Z—platform one and one-half inches from floor for oxygen cylinder.

of air over the cooling coils, automatically takes care of defrosting if frosting should occur. The moisture precipitated from the tent air is collected in the copper flues and drained off through a stopcock several times a day. Odors are combated by washing flues and coils with borax solution.

Sterilization between cases is readily accomplished in Design 2 by washing the flues, coils and tent canopy with a suitable antiseptic solution. The copper flues may be filled with antiseptic and allowed to stand for several hours where special danger of cross infection exists. In Design 1 gaseous sterilization, as formaldehyde followed by ammonia, should be used. General care consists of oiling the motors as necessary. In case the apparatus is not in constant use, it should be operated thirty minutes once a week as a check and to keep the refrigeration unit tuned up.

In actual application to patients, the tents described have been in continuous operation for periods as long as fourteen days. Some of these applications were during the hottest summer weather with temperatures of 95° F. and humidity of 75 per cent. Under these unusual conditions and with the refrigeration unit operating 60 per cent of the time, the temperature was kept at 68° F. and the humidity at 45 per cent. Although the tent has a cubic capacity of about 30 cubic feet and no CO_2 absorber is used, 55 to 58 per cent oxygen concentration and .5 to 1 per cent carbon dioxide concentration are obtained with an average of six liters of oxygen per minute using Design 2. Design 1 requires eight liters of oxygen a minute to obtain similar percentages.

Air conditioning of oxygen tents has been accomplished with the use of electric refrigeration and the refrigerant gas F 12, which is nontoxic, nonodorous and nonexplosive. Temperature and humidity are automatically kept at the desired levels by a thermostat operating within the tent, regardless of weather or climatic conditions. The apparatus is economical since the cost and the labor of replenishing the constantly melting ice are eliminated and 55 to 58 per cent oxygen is maintained without the use of CO_2 absorption by adding five to six liters of oxygen per minute.[1]

[1]Presented scientific exhibit, American Medical Association, Milwaukee, June, 1933.

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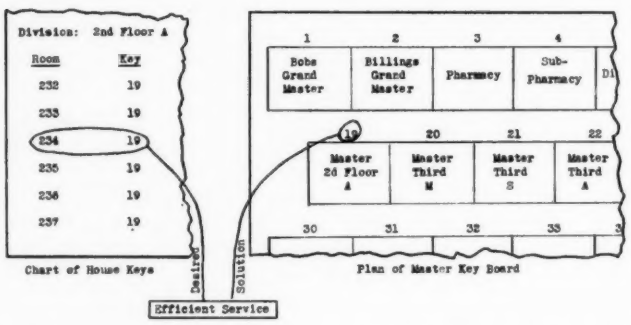
MAINTENANCE, OPERATION AND EQUIPMENT

An Efficient System for Issuing Master Keys

THERE are times out of routine when master keys must be available in the hospital. At the University of Chicago Clinics a well marked special key board is maintained for such emergencies.

This key board is in the telephone operator's room. The operator is held responsible for all keys and sees that they are signed for when taken and again when returned. The signed reports are sent to the superintendent's office daily. Keys are issued only to authorized persons. Such careful control



This drawing shows a section of the key board used to control master key distribution at the University of Chicago Clinics.

is necessary because of thievery, improper use of master keys and other abuses.

Besides sectional master keys, one hook holds the grand master keys which are placed there for use only in the absence of the proper sectional key. In the past the operator, not knowing which sectional master key was required to enter a certain room, was obliged to issue the grand master keys which gave access to all parts of the building. This practice led to misuse of the grand master keys. To enable the operator to designate the correct key required to open a room in a certain section of the building, a survey was made, as a result of which all key hooks on the board were numbered and corresponding numbers were soldered on each key ring. There was then placed convenient for the operator a chart of house keys giving by divisions—wards, laboratories and offices—all room numbers and the number of the key on the board required to enter each room. This arrangement enables the operator to designate at a glance the proper key and reduces to a minimum the expenditure of time and effort on the part of both the operator and the employee. Portions of the chart and key board are shown in the diagram accompanying this article.

While it is difficult to place a money value upon this system, certain benefits are obvious. The grand master keys are always available for an emergency, and the danger of misuse resulting in petty and major thievery is almost entirely eliminated. The key chart saves a great deal of time for the operator, protects her responsibility to some extent, and is unquestionably a great convenience to staff members. Considerable time is also saved in checking "keys out" reports in the office of the superintendent of the institution.

FORM OF DAILY KEY REPORT TO SUPERINTENDENT'S OFFICE

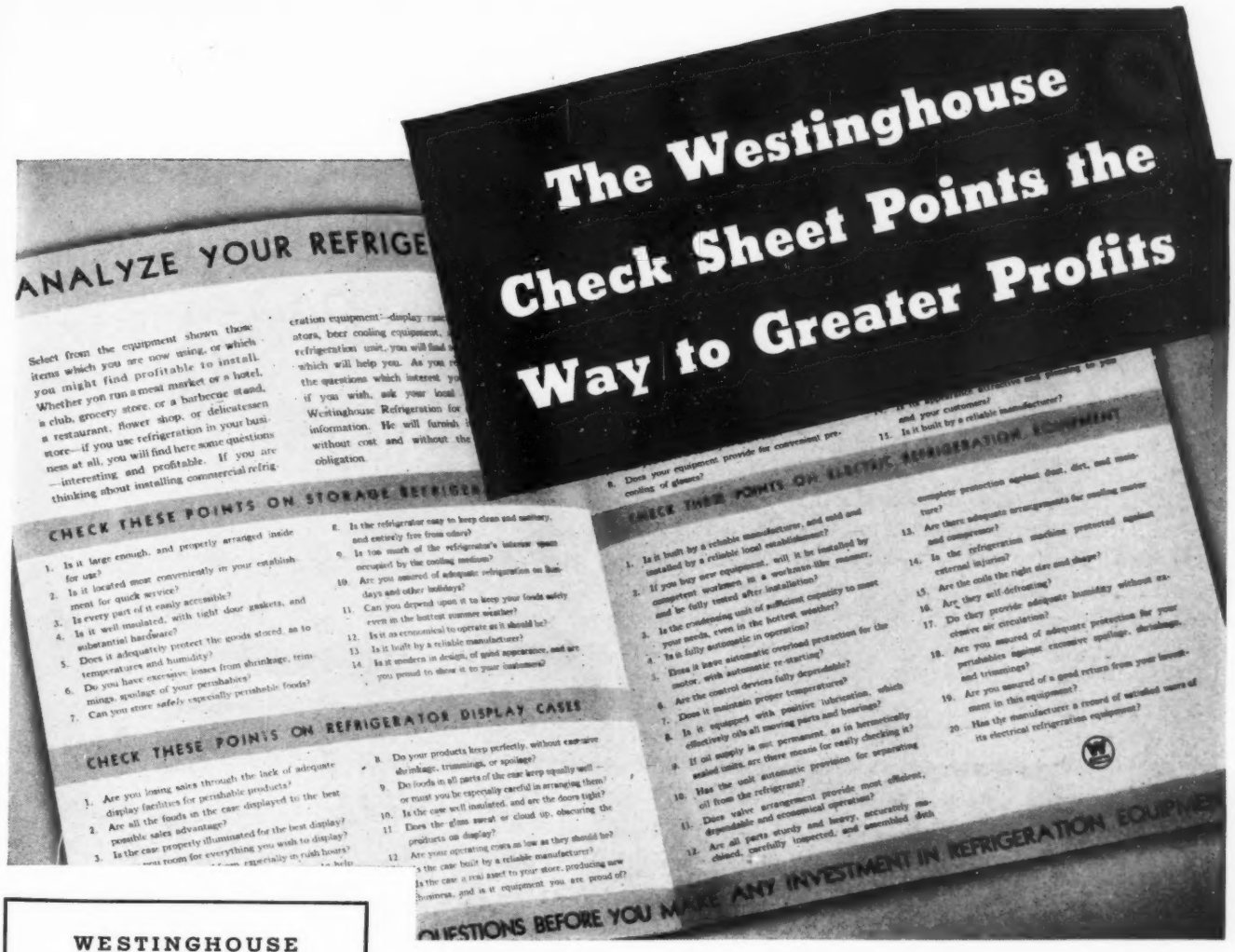
Time Out	Time In	Key No.	Room No.	Purpose	Person

Rubber Covered Doors Have Many Advantages

Certain new hospital uses for rubber were reported in these columns recently. To this list should be added cemented rubber covers for doors where the traffic is heavy. This sort of finish for doors has been found to be particularly effective for the swinging doors leading to the service kitchens.

In the case of those installations a solid sheet of rubber such as is used to make inlaid rubber flooring was glued to both surfaces of the door and finished off with a molded edge. This material has the great advantage of being noiseless, easily cleaned and practically indestructible. Might not bumper plates of good live rubber be quite as useful as the brass bumper plates frequently seen on the bottoms of heavy duty service doors in the hospital? Certainly they would be more nearly silent, more easily maintained and better looking.

Linoleum has been used for bumper plates on service doors of the University of Michigan Hospital, Ann Arbor. After some three or four years of hard service the linoleum coverings, although they show a few gashes, are still generally attractive. The management has expressed itself as well satisfied with their performance.



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Dietetics and Institutional Food Service

Conducted by ANNA E. BOLLER, Central Free Dispensary at Rush Medical College, Chicago

Instructing the Diabetic Patient

By CAROLINE SCOTTON
Assistant Dietitian, Presbyterian Hospital, Chicago

THE importance of the dietary education of patients has only recently been recognized. Only within the last decade or two has instruction of diabetic patients been emphasized and still more recently has the medical profession recognized the importance of dietary instruction of patients in other diseases in which diet is an important factor.

The large number of patients who receive dietary instruction from competent and trained dietitians in city hospitals are but a small percentage of the vast number of people who are dieting with no or with only partial instruction. Often the knowledge people gather concerning a particular diet is gleaned from hearsay, from unauthentic literature or from improper authorities. It is more difficult to correct erroneous ideas than to instruct a person totally ignorant of food principles.

In any dietary instruction the dietitian should realize that she is laying a foundation of food knowledge that will never be completely forgotten. Individuals have considerable curiosity. In the constant "why" of patients lies the basis for the dietitian's educational program. Unless the patient is too ill, instruction should start as soon after admittance as possible, or at least as soon as the patient is placed on a diet.

Bedside Teaching Is Best

Diabetic patients are by the incurable nature of their disease forced to follow their diets for life. Their instruction must be so thorough that it becomes automatic, so that they can make the whole thing an integral part of living.

Dr. Rollin T. Woodyatt of Presbyterian Hospital and Rush Medical College, says that in the care of diabetic patients, the educational program is 90 per cent of the treatment. According to Dr. Elliott P. Joslin of Boston: "Treatment pays; we must force it on the patient."

A carefully outlined educational program should be worked out and followed in the instruction of each patient. Individual instruction of patients has decided advantages over group instruction and should be used if at all possible, for each diabetic case is different. The patient must be made to feel that the educational work is the major part of his treatment and only when that work is satisfactorily completed may he be discharged from the hospital. When his lessons are learned, the diabetic patient probably becomes the most medically educated person in the community

Diabetic patients are forced to follow their diets through life. Their instruction must be so thorough that it becomes automatic. No less an authority than Dr. Rollin T. Woodyatt says that in the care of diabetic patients, the educational program is a good 90 per cent of the treatment

The most valuable procedure is for the dietitian to sit down in the room or by the bedside for fifteen or thirty minutes a day and present her instruction gradually. Under no circumstances should she attempt completely to educate a patient in one lesson, and certainly she should not try to cram a lot of confusing instruction into the patient on the day of discharge when he is under the nervous tension of going home. The dietitian must gain the confidence of the patient and make him want to keep within his diet. This takes time.

If possible the dietitian should be wholly responsible for the patient's education. Continuity throughout the course of instruction is much less confusing to the patient. If he sees that the dieti-

● CONVALESCENTS, and patients on High Caloric Diets enjoy these Pineapple Meringue Tarts: make a filling as for lemon pie, using equal parts lemon and pineapple juice; fill pastry shells; cool, then top with Libby's *center slice* Hawaiian Pineapple, surrounded by meringue; brown lightly in a moderate oven.

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Libby's Sliced Hawaiian Pineapple is exclusively *center slices*. And *center slices* are the finest part of the fruit. Richest in tangy natural flavor; loveliest in color; most uniform in shape.

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And then there is Libby's Pineapple Juice . . . a new product already widely popular. For Libby's is a pure, *unsweetened* juice, exceptionally delicious tasting because it is rich in natural Esters, the flavor-carriers of the full-ripe fruit.

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● FOR FEVERS, SORE THROATS, COLDS. Libby's Unsweetened Pineapple Juice soothes and refreshes the throat—is valuable, too, for its Vitamins A, B, C, and alkaline reaction. Lemon juice or fresh mint may be added. This unsweetened pineapple juice may be used in diabetic diets, for a welcome change.

● FOR THE LOW PROTEIN DIET. Pineapple and Celery Sandwiches made, for variety's sweet sake, with whole wheat, Boston Brown, and white bread. For the filling, combine Libby's Crushed Pineapple (drained) with chopped celery and boiled dressing. Serve with Tomato Aspic.

tian can explain the diet, make the urinalysis tests and give the insulin, he becomes immediately more confident that after sufficient instruction he will be able to do likewise. On the other hand, if a dietitian instructs him about his diet, if a laboratory technician teaches him urinalysis, if a nurse shows him insulin technique, and if the intern or attending man gives him rules concerning the management of his disease after discharge, he feels himself incapable of grasping in so short a time what it has taken each of these individuals many years of careful study to learn.

Educational Check Sheet Is Helpful

An educational check sheet, which may be no more than a mimeographed paper prepared by the dietitian, should be placed in the patient's hospital chart. This check sheet, listing the points of the educational program, indicates to the attending man the progress of the educational work from time to time, and at the completion of the instruction signifies to him that his patient is ready to be discharged.

Should the patient return to the hospital once, or even at frequent intervals, which is often the case, a glance at the educationl sheet may show weakness in some point of the education. If on repeated admissions the sheet shows a review of the work with the patient on each readmission the evidence is that he is not following instructions.

All hospital or clinic patients taught to follow a quantitative diet should be supplied with the necessary equipment at the outset if possible, and certainly before discharge. Giving the patient a list of the equipment needed is not sufficient. Some would follow instructions and purchase the equipment and others would be glad to escape without purchasing the necessities. Patients cannot follow quantitative diets without an accurate scale and even if they do not use it permanently it is a good investment and can easily be resold through the hospital.

A rental service for scales has proved satisfactory. The patient pays for the scale, uses it a few months or until his eye is trained and he is accustomed to his diet, then returns the scale and receives a refund, the price of the rental being based on the length of time the scale is used and the condition it is in when returned.

In a dispensary or food clinic the problem of equipment is necessarily more difficult. There the dietitian must in many cases release equipment with no down payment. A less expensive equipment may be used and a charge of twenty-five cents a week over a period of time will pay for the number of circulating scales needed.

The patient can get along with one or two test tubes for urinalysis, but it is ideal to supply him with complete equipment consisting of scale, test tubes, dropper, alcohol lamp, test tube rack, funnel filter paper, insulin syringe and plenty of needles at the very first. The solutions needed for the specimen tests may usually be obtained from the hospital drug room for the patient before his discharge.

When the patient has been supplied with equipment, the instruction may be started. The first lesson should convey to the patient a comprehensive and yet easily understandable definition of diabetes, what it is, how it can be controlled, and why it must be controlled. A scale should be provided at the bedside so the patient may obtain practice in weighing food and thus become familiar with the metric system, which is generally used in quantitative diets. It is absolutely necessary that some patients continue to weigh their food; others of a higher degree of intelligence immediately start drawing comparisons between the weighed quantities of food and what they have been used to eating. These may abandon the scale after several months of experience in estimating.

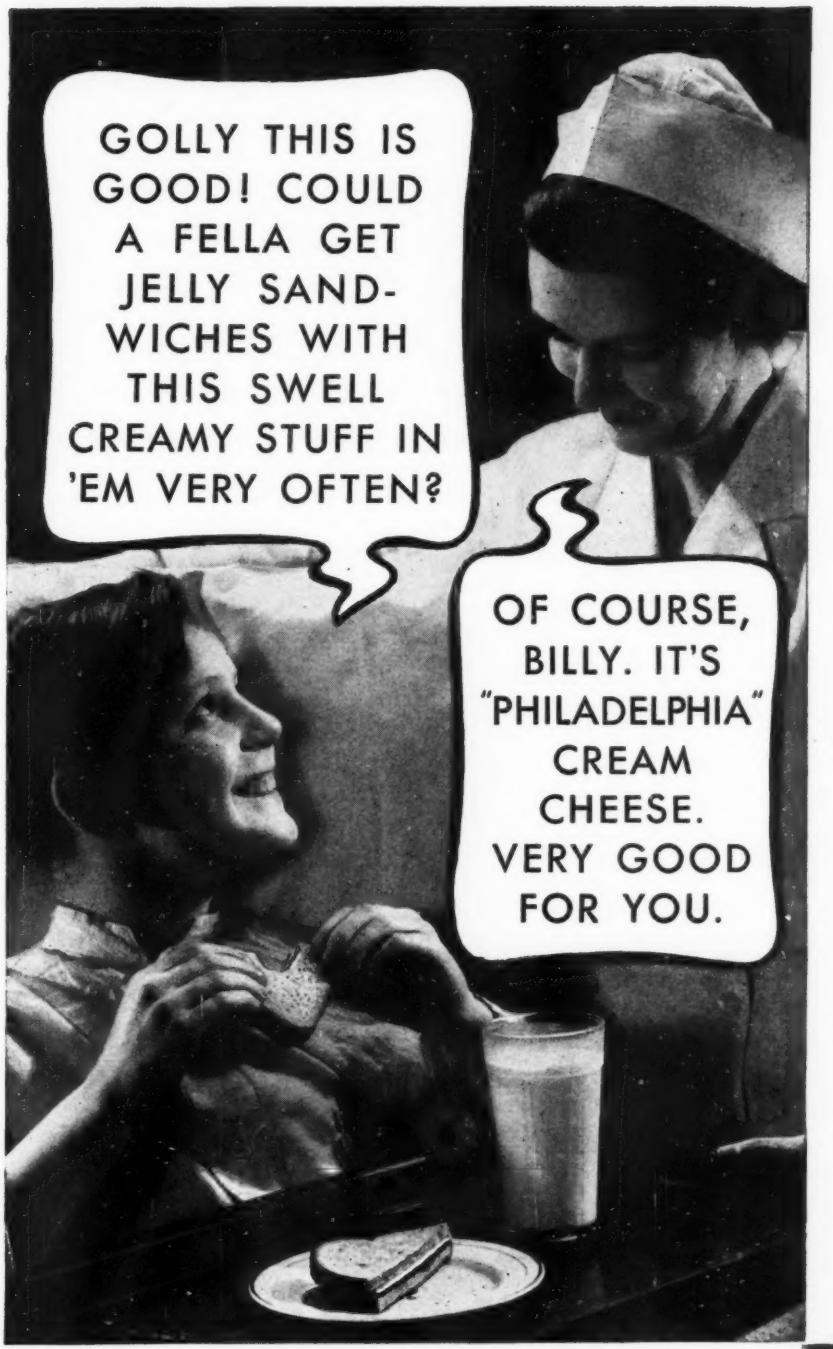
After instruction on the nature of diabetes and the place of the scale in the diet, a lesson should be spent explaining food principles. The principles of physiology and nutrition, the purpose and action of food in the body, and the functioning of the various organs of the body can be explained in simple terms.

Insulin Deserves a Thorough Explanation

Not all patients have heard of the food elements carbohydrate, protein and fat. Even those who are familiar with the terms rarely have seen the elements and use the terms blindly. When she enters a room to instruct a patient, the dietitian should be equipped with actual samples. Carbohydrate can be shown in the form of pure cane sugar or cornstarch; protein, in the form of pure gelatin or dried white of egg, and fat, in the form of olive oil.

The demonstration should then proceed further, and the patient should see, feel and taste glucose, the body sugar. A commercial sample of the synthetic product can be obtained through the drug room. To make glucose a more tangible object one may demonstrate that 100 gms. of orange juice contains glucose equivalent to two cubes of sugar, and that a glass of milk (200 gms.) contains glucose equivalent to three cubes of sugar, by actually placing the equivalent number of sugar cubes by the orange juice and milk.

Insulin deserves a thorough explanation whether the patient is obliged to use insulin or not. All diabetic patients are best considered insulin patients, some of them, however, with a dosage of



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zero. One type of patient thinks insulin is a drug or dope and has been told that insulin once started can never be discontinued. All such erroneous ideas must be corrected and the patient made to realize that insulin is a natural internal body secretion.

To demonstrate the principle that insulin makes it possible for the glucose in the body to burn, one may attempt to burn with a match an ordinary cube of sugar. This is impossible. However, the addition of a small bit of wood ash, easily obtainable in the form of cigarette ash, will make it possible for the sugar to burn. An analogy can then be drawn between that experiment and the true chemical action of the insulin upon the glucose within the body. This demonstration is particularly spectacular to less intelligent patients.

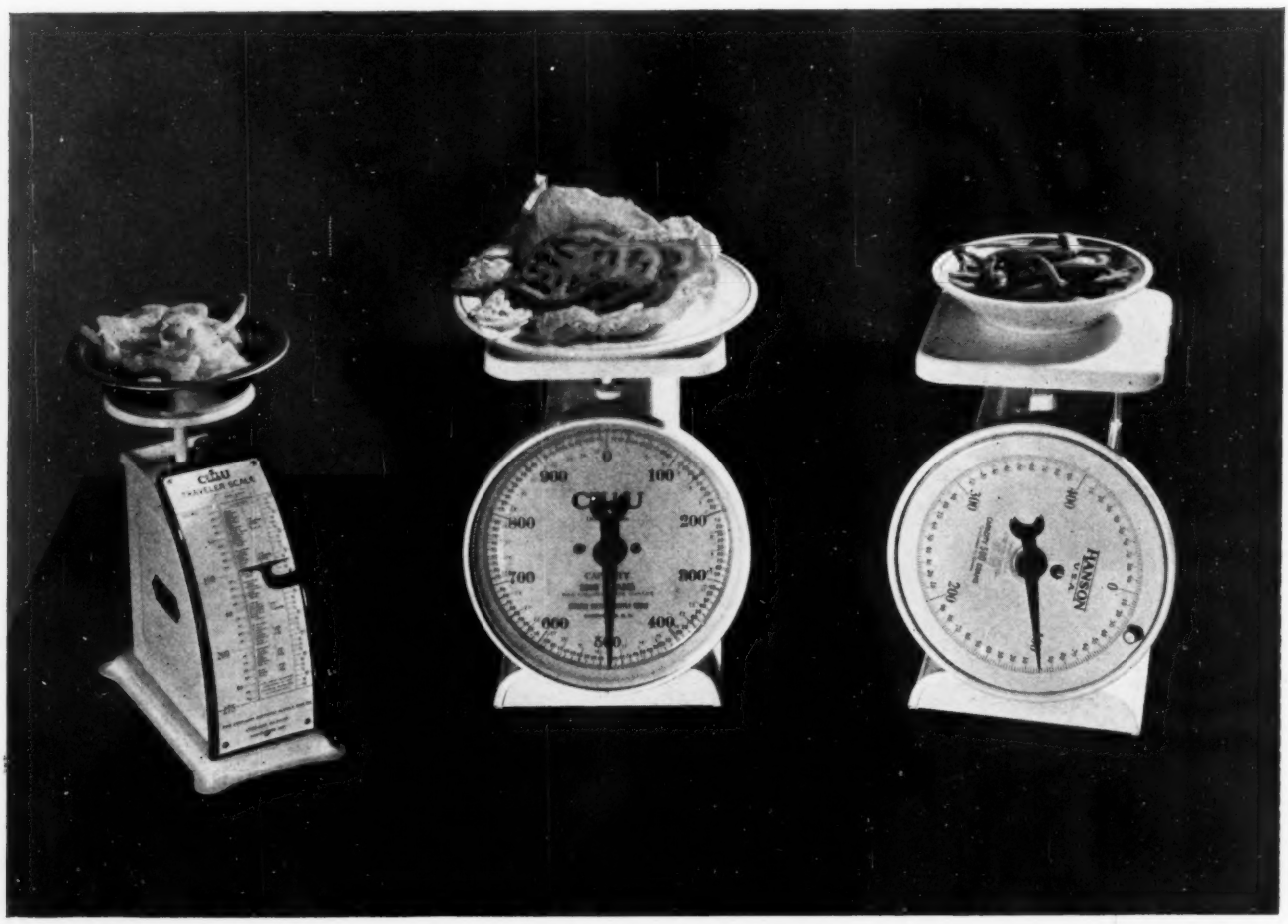
Calories should be explained if only for the reason that so many incorrect ideas exist concerning the caloric content of different foods.

Intelligent patients should be taught how to compute their diets. This will increase their interest in following the diet, will make the diet more flexible and will make it possible for the physician to order diet changes to be made by the patient himself. But too much stress laid on the calculation of diets will in some cases detract from other and more important things.

The diet itself should be explained carefully and fully; then at some later time the patient should be required to read the diet aloud to the dietitian. Patients frequently to avoid embarrassment will say they understand the diet, but upon being questioned it is found that they do not understand it at all. Each hospital has its own food lists, a copy of which should be given to the patient and marked to suit his individual diet. Substitution or exchange lists should be worked out by the dietitian.

Diabetic patients must be instructed in urinalysis. This is done by the intern, floor nurse or dietitian. Tests for diacetic acid as well as glucose should be shown the patient and he should be required to make several of each of these tests while in the hospital. A copy of the directions for making the two tests should be included in the patient's notebook.

In hospitals where the dietitian works directly with the physicians handling metabolic cases, she is often given the responsibility of further instruction of the patient, such as the technique of insulin administration, the regulation of the insulin dosage, and the management of the patient's own case



Patients cannot follow quantitative diets unless they have been instructed carefully in the proper use of scales.

of diabetes according to the physician's schedule.

What cost most in diabetes are the complications. Patients must be taught how to dodge such complications as coma, infections, operations, infectious diseases, colds and abscessed teeth and how to cope with them should they occur. The treatment of emergencies arising from complications must be taught thoroughly to the patient.

CHECK ON EDUCATIONAL EQUIPMENT

Name..... Room.....

Date Admitted..... Address.....

Date Discharged.....

INSTRUCTION IN:

I Nature of Disease
- A Glycosuria
  - Why it should be stopped
  - How it is done
  - When it need not be stopped

II Carbohydrate Protein Fat Calories Glucose Fatty Acids Insulin

III Figuring Diets
- A Food groups
- B Use of food value tables
- C Calculating C, P, Cal., G & FA of a given diet
- D Substituting
- E Rearranging articles in diet

IV Insulin Cases
- A Emergency diet (milk equivalent)
- B Instruction in its use
- C What to do if insulin supply is exhausted
- D Information about insulin reactions
- E Sugar on person
- F Technique of insulin injection

V Testing
- A Sugar
- B Aceto-acetic acid

VI Weights
- A Use of scales
- B Metric system

VII How to Procure Supplies
- A Haines solution
- B Ferric chloride
- C Insulin
- D Syringe and needles

VIII Records
- A Instruction about keeping records
- B Bringing to office

IX Urinalysis follow-up after discharge from hospital

PATIENT RECEIVED:
- Notebook
- Scales
- Insulin, syringe and needles
- Urine testing outfit
  - A Haines solution
  - B Ferric chloride
- Recipes

LEFT ON DIET OF:
G Cal. Insulin C P F

Without Insulin
Desugarizing diet
When to be used

Educational Work
Complete
Incomplete

Remarks

Checked by

The educational program here outlined is ideal if it can be carried out properly. I realize that many hospitals do not have a sufficiently large staff of dietitians or a sufficient number of special diet patients to permit one dietitian to supervise the quantitative diets and also instruct the patients. In smaller hospitals where there is only one chief dietitian she can by careful planning and realization of the importance of educational work among patients carry out a program similar to the one outlined. Fifteen minutes a day with the patient during his stay in the hospital will mean much more to him than hurried and confusing instruction on the day of discharge.

Even with a well outlined and well developed course of instruction many difficulties present themselves and must be overcome. It is best to approach each new patient with the attitude that he knows nothing about diabetes; then no points in the instruction will be slighted. The most simple and enjoyable task is the education of intelligent patients, those with open minds, ready and eager to learn and also with sufficient means to permit them to follow the diet ordered and to purchase the necessary equipment. A more difficult problem arises with that group of well educated persons, also of means, who at first are placid and unresponsive and create the impression that they know it all already.

Mothers Are Difficult to Handle

Another group of patients consists of those who have drifted from hospital to sanitarium, clinic to spring baths, doctor to doctor, and have collected from each a smattering of confused ideas, but mostly a lot of books, menus and charts. Occasionally the dietitian has to bear with the patient until he tells all he knows. At times she has firmly to state the fact that the patient is now in her hospital, under the care of Doctor Blank, and if he expects any returns from his stay he will have to accept the treatment and instruction being given under Doctor Blank's orders.

Education of the patient in whom diabetes has only recently been discovered can proceed readily without the opposition of preconceived ideas. Instruction in these cases is impressive and enlightening to the patient. His interest is aroused at the diagnosis of his case and all printed articles on diabetes are carefully read and all advice from friends is heeded. Thus it becomes the duty of the dietitian to lay a firm foundation on which the patient can rely, as he will find it necessary to discuss diabetes with friends and to listen to many false ideas and quack remedies.

Mothers of young children constitute a varied and difficult group. The shock of learning that her

child has diabetes is great and some mothers cannot adjust themselves readily. As soon as the mother begins to see improvement in the condition of her child she will be ready to assume the responsibility. Other mothers may be just the opposite, so eager to learn everything and to take the child home again that unless the dietitian puts on the brakes the mother will get only a superficial knowledge of the care of her child.

Dietary education of children is most stimulating. Their young, eager, carefree minds quickly grasp the diet, the testing, the insulin technique and even the treatment of emergencies. Children whenever possible should be permitted to assume a major part of the responsibility; above all, they should not be considered invalids.

Dealing With Foreign-Born Patients

The dietitian frequently comes in contact with the foreign-born who cannot read or write or perhaps even understand English. The line of least resistance is to establish contact with some member of the immediate family of the younger generation who has been educated in America. This simplifies the dietitian's part in the education, but is it best for the patient? When possible, the patient himself should be educated and held responsible. Education makes him free. No one else, no matter how closely related, will take the same degree of responsibility. In some cases, however, it has proved quite satisfactory to have a husband, wife, son or daughter receive the instruction.

Lack of intelligence or of cooperation on the part of the family has a great influence. The dietitian must be prepared to teach not only the patient but his family and even groups outside the family who are concerned in the future of the patient. The first lesson may be directed to the patient; at the second lesson the dietitian will find the husband present, eager to learn; the next lesson may bring the sister-in-law, the aunt, the daughter, and so on down the list of relations. Instead of becoming impatient the dietitian should be glad of this opportunity of spreading her dietetic knowledge among these people.

Dietary food lists can be printed or written in foreign languages and are of great help if the patient can read. Some foreigners cannot even read their own language. The best method in dealing with this type of patient is to allow him to do manually in the hospital or clinic everything that he will have to do at home later. He can be taken to the kitchen, shown the foods allowed on the diet and permitted to weigh them out in the quantities ordered. Cooking demonstrations, showing how the special diet can be made a part of the regular family diet, are valuable. These also show the proper method of preparing vegetables and meats.

By constant repetition in weighing foods, in testing specimens and in administering insulin, the patient will learn how to take care of himself. The task of the dietitian in such cases is tedious but no more tedious than the repetition required in the instruction of stupid Americans who repeatedly do the simplest things wrong. If the patient can understand some English the dietitian can by using the most simple terms convey the instruction thoroughly. Teaching the calculation of the diet is justifiably omitted in such cases. If the patient has words of his own that express the same idea, by all means let him use them.

In dealing with the poorer class of foreigners, many social problems present themselves. Especially in these past few years of depression when so many families have been receiving their rations of food from the charities or have been allowed only a certain sum of money weekly with which to purchase their food, the dietitian has been confronted with a difficult situation. Some well organized relief agencies have compiled food lists that meet the requirements of diabetic, ulcer, ketogenic or colitis diets, and yet still remain within the food budget. The dietitian has found it necessary to rearrange the standard diabetic diets to include less expensive foods that will serve the same purpose. A diet can be successful only when suited to the patient's possibilities as expressed in terms of his environment and his ability.

Less Expensive Foods May Be Used

The ketogenic and diabetic diets have always been considered expensive, but the past few years have made it necessary to supplant the required cream with milk and still maintain the desired fat content with the addition of larger quantities of butter, bacon or salad dressing. The protein formerly ordered in the form of meat can be replaced from less expensive sources such as fish and cheese. The raw fruits and vegetables necessary in the atonic constipation, the diabetic and the high vitamin diet must be specified in filling out the food requisition.

When a sum of money has been allotted with which to purchase food for a family, one of whom requires a special diet, it has become the duty of the dietitian to teach the head of the household how to buy the proper foods most economically. Especially in an out-patient clinic the dietitian has found that her educational program does not end with the instruction of the patient about the diet. She must follow the patient into the home, sometimes even into the store where the shopping is done.[1]

[1]Presented at the meeting of the Wisconsin State Dietetic Association, Milwaukee, March 17, 1934.

June Dinner Menus for the Patient in the General Hospital*

By NELDA ROSS
Director, Nutrition Department, Presbyterian Hospital, New York City

Day	Appetizer or Soup	Meat or Substitute	Potato or Substitute	Vegetable	Salad or Relish	Dessert
1.	Vegetable Soup	Boiled Salmon, Egg Sauce	Mashed Potatoes	Buttered Spinach	Tomato Salad, French Dressing	Baked Rhubarb, Orange Cinnamon Cake
2.	Pineapple-Mint Cup	Liver Saute With Bacon	Baked Potato	Fresh String Beans	Radishes	Floating Island With Grated Coconut
3.	Chicken Broth With Vermicelli	Grilled Steak	Julienne Potatoes	Fresh Asparagus, Butter Sauce	Waldorf Salad	Fresh Strawberry Ice Cream
4.	Cream of Spinach Soup	Pot Roast Beef With Gravy	Buttered Noodles	Julienne Carrots	French Salad Bowl, Roquefort Dressing	Blueberry Bavarian Cream on Sponge Cake
5.	Oxtail Soup	Meat Balls With Gravy	Mashed Potatoes	Cauliflower, Butter Sauce	Tomato Aspic Salad, Mayonnaise	Sugar Cookies, Blackberries With Cream
6.	Jellied Beef Broth	Baked Ham	Baked Sweet Potato	Buttered New Cabbage	Spiced Peach	Maple Nut Ice Cream
7.	Cream of Mushroom Soup	Swiss Steak	Parsley Potates	Harvard Beets		Sliced Peaches, Brownies
8.	Tomato Juice	Haddock Fillet, Parsley Sauce	Baked Potato	Butter String Beans	Lettuce, Watermelon Pickle Dressing	Fresh Cherry Pie
9.	Purée of Jerusalem Artichoke	Roast Beef	Mashed Potatoes	Succotash	Combination Vegetable Salad, French Dressing	Fresh Apple Sauce, Blueberry Cake
10.	Fruit Cup	Chicken Fricassee, With Biscuit	Baked Carrots	Chopped Spinach	Celery and Radishes	Ice Cream, Fresh Raspberries
11.	Chicken Okra Soup	Meat Loaf	Creamed Potatoes and Peas		Tomato and Cucumber Salad	Fresh Pineapple-Coconut Ambrosia
12.	Melon Cup	Roast Leg of Lamb, Caper Sauce	Potato Soufflé	Fresh Asparagus, Butter Sauce	Coleslaw With Green Pepper	Creamy Rice Pudding
13.	Broth With Noodles	Liver, Spanish Sauce	Steamed Potatoes	Swiss Chard	Fruit Salad, Cream Dressing	Angel Cup Cakes
14.	Thick Potato Soup	Meat Pie With Vegetables and Biscuit Top			Lettuce, Thousand Island Dressing	Lemon Milk Sherbet
15.	Black Bean Soup With Lemon	Broiled Halibut	Mashed Potatoes	Stewed Tomatoes	Gooseberry Marmalade	Apple Crisp With Cream
16.	Vegetable Soup	Lamb Fricassee	Steamed Rice	Buttered New Carrots	Romaine, French Dressing	Stewed Fresh Plums, Molasses Cookies
17.	Tomato Juice	Roast Sirloin Beef, Mushroom Sauce	Browned Potatoes	Fresh Lima Beans	Celery Hearts	Fresh Strawberry Short Cake
18.	Cape Cod Clam Chowder	Cold Sliced Meats	Escalloped Corn	Buttered New Beets	Spring Salad	Indian Pudding With Raisins
19.	Fruit Cup	Chicken Pie With Potato Crust		Buttered Wax Beans	Celery, Pickle, Peanut Gelatine Salad	Orange Sherbet, Cookies
20.	Jellied Beef Broth	Grilled Round Steak With Cream Gravy	Steamed Potatoes	Diced Summer Squash	Tomato and Lettuce Salad	Stewed Fresh Cherries, Spice Cake
21.	Minestrone Milanese	Roast Veal With Gravy	Mashed Potatoes	New Peas and Celery	Radishes	Green Apple Pie
22.	Tomato Bouillon	Baked Bluefish, Lemon Butter	Baked Potato	Fresh String Beans	Cucumber Salad, French Dressing	Graham Cracker Ice Box Pudding
23.	Mulligatawny Soup	Lamb and Kidney, Fresh Vegetable Ragout	Steamed Rice		Tomato and Chicory Salad	Fresh Coconut Cake With Orange Filling
24.	Beef Broth With Rice	Roast Chicken	Mashed Potatoes	Asparagus, Hollandaise Sauce	Waldorf Salad	Fresh Peach Ice Cream
25.	Jellied Chicken Broth	Boiled Smoked Tongue	Creamed New Potatoes	Cauliflower, Butter Sauce	Spiced Currants	Fresh Raspberry Short Cake
26.	Tomato Juice	Lamb Chops	Parsley Potatoes	Creamed Onions	Water Cress, French Dressing	Cantaloupe
27.	Consommé Royale	Roast Pork	Baked Sweet Potato	Buttered New Beets	Apple Sauce	Vanilla Ice Cream, Chocolate Sauce and Bananas
28.	Black Bean Soup With Lemon	Boiled Beef, Horseradish Sauce	Dumplings	Buttered New Peas	Coleslaw, Cream Dressing	Mixed Fresh Fruit, Marguerites
29.	Scotch Broth	Broiled Fillet of Flander	Escalloped Potatoes	Grilled Tomato	Tartar Sauce	Blueberry Muffins, Stewed Fresh Prunes
30.	Beef Broth With Noodles	Chicken and Veal Salad	Macaroni and Cheese	Fresh Spinach		Deep Dish Black Cherry Pie

*Requests for recipes for any of the foregoing dishes should be addressed to Anna E. Boller, Central Free Dispensary, Rush Medical College, Chicago.

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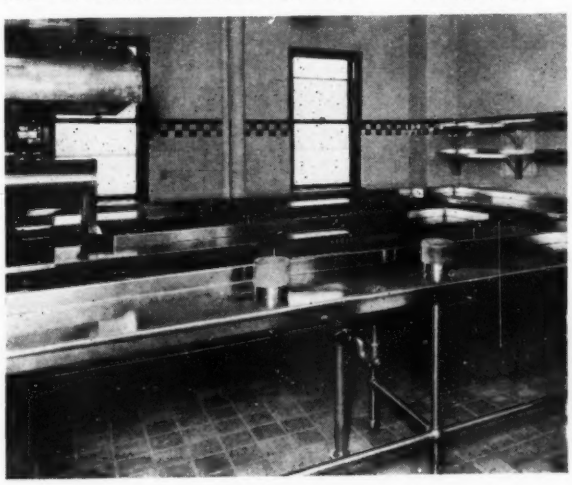

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NEWS OF THE MONTH

Many Institutions Observe National Hospital Day With Suitable Programs

Many hospitals throughout the United States and Canada developed a closer bond with their communities through observance of National Hospital Day on May 12. A proclamation was issued by President Roosevelt and two nationwide broadcasts were made.

Perhaps the most hospital-conscious community in the United States now is Evansville, Ind. Residents of Evansville during the week preceding National Hospital Day heard about it in their churches and clubs and over the radio. When they took in the morning's milk on hospital day a "collar" on the milk bottle invited them to visit the Deaconess Hospital. If they ventured out of doors they found leaflets falling from the skies with the same invitation. Each street car carried an invitation and so did bread, laundry and meat trucks. Physicians found an invitation also in their county society bulletin.

In the evening a parade in eight sections featured hospital day and automobile safety. Those who failed to see the parade itself saw motion pictures of it in the local theaters. In the afternoon a tablet was dedicated to Clara Barton who directed flood relief from a house on the site now occupied by the Deaconess Hospital.

The baby that was born in Deaconess Hospital nearest to noon of May 12 was called 'the hospital day baby and, with its mother, was a guest of the hospital.

Miss Miller Is Chief Speaker

A playlet regarding Clara Barton was given before civic clubs, a window display was arranged in a downtown store, and several thousand of the hospital day leaflets prepared by Parke, Davis and Company were distributed. Every department of the hospital was prepared for visitors. Three ambulances were on display in front of the institution. An evening meeting was featured by music, the motion picture, "Good Hospital Care," an address by Veronica Miller, chairman of the National Hospital Day committee, and the presentation of a portrait of Mrs. Franklin D. Roosevelt to the nurses' home.

Another unusually fine program was presented by the Clifton Springs Sanitarium and Clinic, Clifton Springs, N. Y. A "project" on the importance of the hospital to the community was worked out by the children in the public schools. They made posters and models of the hospital and of various rooms, prepared a history of the institution, studied its relation to the village and discussed how boys and girls could help it. The models and posters were exhibited in a downtown store window. Four or five hundred people visited the sanitarium. Whenever the mothers desired it, physicians examined babies that had been born in the institution. Pictures in the lobby showed the development of the institution in the last half century and also some of the old residents.

K. C. Hospitals Unite for Program

Four hospitals joined hands to observe National Hospital Day in Schenectady, N. Y., and in the Kansas City area fifteen hospitals participated. The latter group sponsored a public meeting under the auspices of the Hospital Council of Kansas City. Dr. Bert W. Caldwell was the principal speaker and the motion picture, "Good Hospital Care," was shown. There were 200 student nurses in uniform and Boy Scouts acted as ushers. The program was well advertised by displays in department stores and notices in the newspaper advertising of many firms.

Hackley Hospital, Muskegon, Mich., dedicated a plaque to those who had donated to its free bed fund. Homeopathic Hospital, Montreal, held an essay contest among high school pupils on the "Value of Hospitals to the Community." Boston Floating Hospital issued a clever invitation that contained an historical map depicting the progress of the institution. In Chatham, Ont., the Public General Hospital presented on the radio a two-act play on the life of Florence Nightingale. Glens Falls Hospital, Glens Falls, N. Y., had a trio of blind musicians who were former patients. Displayed in store windows and on busses were posters made in the schools.

Inexpensive but artistic mimeographed invitations were sent out by Newton Memorial Hospital, Newton, N. J. These included attractive road maps.

Mary McClellan Hospital, Cambridge, N. Y., presented a play entitled "Men and Women in White." Lutheran Hospital, Brooklyn, N. Y., inaugurated a baby guild of the nursery "graduates." Guests at St. Vincent's Hospital, New York City, witnessed picturesque and colorful tableaux depicting "A Century of Hospital Progress."

A. H. A. Announces Second Administrators' Institute

The second A. H. A. institute for hospital administrators will be held at the University of Chicago, September 10 to 22, inclusive.

The course has been shortened to two weeks and more intensive instruction will be given. The only charge is a registration fee of $10 although students must meet their own living, travel and personal expenses.

Only men and women who are or have recently been superintendents, assistant superintendents, superintendents of nurses or business managers or have held other positions having equivalent responsibility are eligible.

The tentative plan of the course allocates the mornings to lectures, seminars and conferences and the afternoons to visits and studies of administration in Chicago hospitals.

Students who attended last year's institute may elect a subject for special study and will be excused from clinics not related to this subject.

Twelve subjects will be presented in seminars, each subject having one period in the first week and one in the second. The topics are as follows:

Hospital organization; medical services and records; the hospital plant; equipment, furnishings and supplies; nursing service; food service; business administration; housekeeping, laundry and linen service; out-patient department; social service; group hospitalization, and hospital ethics and community relationships.

Housing accommodations may be had at the university dormitory for $14 for the full two weeks. Meals may be taken wherever the student wishes.

NEWS OF THE MONTH

Practical Problems Considered at N. Y. State Hospital Meeting

Large attendance, interesting exhibits and discussion of a wide variety of practical hospital problems contributed to make the tenth annual conference of the Hospital Association of New York State, held in New York City, May 24 and 25, one of the most successful meetings in the annals of the association. Hospital service departments in particular were singled out for attention, and much interest centered, too, upon problems pertaining to nursing and nurse education.

A high spot of the opening session was an address of welcome by Dr. S. S. Goldwater, commissioner of hospitals, New York City, who indicated that if present economic conditions continue for any length of time, the municipality will be forced to consider seriously the question of providing support for physicians' work in municipal hospitals and dispensaries.

Among current problems of hospitals in New York State as presented to the assemblage during the afternoon session of the opening day was the out-patient department. Dr. Frederic MacCurdy, superintendent, Vanderbilt Clinic, New York City, said out-patient departments come in for criticism because they lack standardization.

Legislation that would make illegal the administering of anesthetics by nurses was bitterly assailed by Dr. Arthur W. Elting, chief surgeon, Albany Hospital, Albany.

Meeting the Financial Crisis

Results of a survey conducted among hospitals of the state to determine how they have endeavored to meet the financial crisis were presented by J. J. Weber, superintendent, Vassar Brothers' Hospital, Poughkeepsie. Mr. Weber's report revealed wide differences of opinion but indicated that careful thought is being given by administrative officers of hospitals, large and small, to reduce expenses at no sacrifice to efficiency.

Operation of linen and laundry departments, the storeroom, the engineering department, the pharmacy and the food service was discussed in the course of a program of great practical value. This program, arranged by John J. MacCormack, superintendent, Presbyterian Hospital, New York City, was devised to bring out salient points in connection with the operation of these departments.

That poor washing costs more than good washing was emphasized by T. Parker Clarke, consulting engineer, New York City, who stressed the importance of suitable location for the laundry and urged efficient equipment. For example, homemade soap, he stated, is less effective than that offered by reliable manufacturers. He also stressed the need for a system of linen control adapted to the particular organization.

Tells Engineer's Problems

Four major considerations were brought up for attention by Madison B. Ferris, steward, Kings County Hospital, Brooklyn, in considering the storeroom. These are purchase, receipt and storage, issuance and record procedure. Mr. Ferris' paper was discussed by David H. Hammond, superintendent, Flower Hospital, New York City. Problems of the engineer in accomplishing economy while maintaining proper service and in keeping the plant working efficiently at all times were described by William B. Overton, supervising engineer, Montefiore Hospital, New York City.

Advantages of having the pharmacy conveniently situated, suitably lighted and of proper size were points in Isadore Rogin's description of the modern hospital pharmacy. Mr. Rogin is pharmacist of Mt. Sinai Hospital, New York City.

Margaret Gillam, dietitian, New York-Cornell Medical Center, outlined the various functions of the food department and stressed the need for arranging its layout according to plans made by persons actually in charge of food service.

Dr. Nathaniel W. Faxon, president, American Hospital Association, stated that in his travels around the country he found that hospital bed occupancy and revenue had increased about 10 per cent during recent months.

The largest audience gathered to hear an exposition of the nursing situation in New York State with remedial measures as offered by Dr. Harlan Hoyt Horner, assistant commissioner for higher education, University of the State of New York. After quoting figures on oversupply in the state, Doctor Horner advanced as a fundamental premise for future action that no person shall practice nursing in the state without license.

Among other suggestions was a two-year moratorium on all hospital training schools. To meet public demand, Doctor Horner would set up two groups of nurses—practical nurses with at least one year of hospital training and registered nurses. All training schools operated by hospitals he would gradually close and in their stead establish cooperative institutions for training nurses in fifteen or twenty centers with a supervising head acting under educational authority. There would be provided at least one year of college training and two years of clinical experience. The student would be required to pay for what she gets, and she would be paid for what she does.

P. Godfrey Savage, superintendent, Niagara Falls Memorial Hospital, Niagara Falls, was elected president of the association. James U. Norris, Woman's Hospital, New York City, was elected first vice president.

Midwest Group Advocates Employee Training School

The formation of a school conducted by a hospital for the training of minor employees regarding their duties and attitude toward patients and visitors was one of the steps advocated by speakers who addressed the Midwest Hospital Association at its annual meeting in Tulsa, Okla., on May 25 and 26. Other speakers urged the following: (1) formation of local hospital councils; (2) strict adherence to A. H. A. ethics and publicity code for hospitals; (3) united efforts by local hospitals to eliminate the "chiseller" who seeks to benefit his own hospital by cutting rates; (4) concerted action for hospital lien laws, and (5) compulsory insurance.

The association reelected Frank J. Walter, superintendent, St. Luke's Hospital, Denver, as president.

NEWS OF THE MONTH

Illinois, Indiana and Wisconsin Groups Hold Annual Joint Meeting in Chicago

The effects of national and state legislation on hospitals was a dominant point of discussion in the joint convention of the Illinois, Indiana and Wisconsin hospital associations held in Chicago, May 2, 3 and 4.

Paul Fesler, chairman of the legislative committee, Illinois Hospital Association, suggested that hospitals enlist the aid of their boards of trustees in working for their legislative program.

George W. Wolf, formerly business manager of the Lafayette Home Hospital, Lafayette, Ind., described how Indiana hospitals had succeeded in securing enactment of a lien law.

The growing problem of caring for automobile accident cases was analyzed by J. G. Crownhart, Madison, Wis., secretary, Wisconsin Hospital Association. Four principal remedies have been suggested, he said: (1) a lien law for the benefit of hospitals, physicians and nurses, (2) the Ohio plan whereby a portion of the gasoline tax or the license fee is set aside to pay for care of those patients who are unable to pay, (3) compulsory automobile insurance—the Massachusetts plan, or (4) the Columbia University plan whereby every car would be taxed a small amount to pay for all the damages resulting from automobile accidents.

Mr. Crownhart pointed out that the lien law is frequently not effective because so few drivers carry insurance that in only about 10 per cent of the cases are judgments given and collected. The Columbia University plan has the greatest appeal to doctors and hospitals, Mr. Crownhart said, but he asserted that all plans have been vigorously opposed by certain groups.

Maurice Dubin, superintendent, Mt. Sinai Hospital, Chicago, amused the convention by quoting extensively from a report published in March, 1929, in which the hospital superintendents of New Jersey opposed state aid for the care of indigent patients. He reviewed the Pennsylvania system of state aid in detail and suggested that other states should copy it. Dr. Herman Smith, superintendent, Michael Reese Hospital, Chicago, opposed the idea.

Asa Bacon, superintendent, Presbyterian Hospital, Chicago, Dr. Hugh Scott, manager, U. S. Veterans' Administration Facility, Hines, Ill., Sister Mary Therese, educational director, John B. Murphy Hospital, Chicago, and J. Dewey Lutes, superintendent, Ravenswood Hospital, Chicago, conducted a symposium on keeping hospitals human.

The Rev. John G. Benson, superintendent, Methodist Hospital, Indianapolis, described the "New Deal Program" of Indiana Methodist hospitals.

E. I. Erickson.

E. C. Moeller.

Dr. R. C. Buerki.

The presidents of each of the three state associations presented the results of economic surveys of conditions existing among their hospitals. Dr. R. C. Buerki reported the following averages for the state of Wisconsin.

	Size of Hospital		
	Under 50 beds	50–100 beds	Over 100 beds
Indebtedness per bed	$887	$737	$1,659
Occupancy, 1930	66%	60%	70%
Occupancy, 1931	61%	58%	62%
Occupancy, 1932	52%	48%	54%
Occupancy, 1933	44%	44%	48%
Bad debts, 1930	15%	7%	5%
Bad debts, 1931	18%	9%	7%
Bad debts, 1932	14%	13%	8%
Bad debts, 1933	23%	18%	9%
Free work, 1930	11%	4%	12%
Free work, 1931	13%	5%	13%
Free work, 1932	15%	14%	19%
Free work, 1933	20%	20%	25%

A strong plea for centering both responsibility and authority on carefully selected and competent department heads was made by L. C. Austin, superintendent of Mount Sinai Hospital, Milwaukee.

Declaring that the hospital's food is often the main criterion of the hospital in the patient's mind, Grace Crafts, superintendent, Madison General Hospital, Madison, Wis., set forth the essentials of food management as follows: (1) careful purchasing of good quality food with close cooperation between the dietitian and the buyer, (2) adequate storage and control of stores, especially of perishables, (3) adequate equipment in the kitchen including electrically heated food conveyors, (4) proper planning and preparation of food with variety in foods and in their appearance, (5) standardized portions and careful watching of patients' likes and dislikes, (6) competent, skilled direction by the dietitian with full control of food from the storeroom to the patient.

Ada Belle McCleery, superintendent, Evanston Hospital, Evanston, Ill., urged that personnel be well fed and stated that her experience with a cafeteria for employees had been happy.

Dr. R. C. Buerki, superintendent, State of Wisconsin General Hospital, Madison, was reelected president of the Wisconsin Hospital Association and J. G. Crownhart was reelected secretary-treasurer.

E. I. Erickson, superintendent, Augustana Hospital, Chicago, was elected president of the Illinois Hospital Association and Maurice Dubin was reelected secretary-treasurer.

E. C. Moeller, business manager, Lutheran Hospital, Fort Wayne, Ind., was installed as president of the Indiana Hospital Association, and C. C. Hess, Methodist Hospital, Indianapolis, was selected as president-elect.

Illinois amended its constitution to provide for institutional membership.

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NEWS OF THE MONTH

Michigan Medical Society Approves Plan for Medical Care on Insurance Basis

By a vote of 61 to 9 the house of delegates of the Michigan Medical Society has approved a plan for the provision of complete medical, hospital, nursing, dental and pharmaceutical service on an insurance basis to the employees of Michigan who earn less than $1,500 a year and their families, according to the May issue of the society's *Journal*.

The society's committee on medical economics has been directed to discuss the plan with employers and employees, retain counsel and prepare final details for giving the plan a trial.

The plan, in brief, provides for the organization of a nonprofit corporation called Mutual Health Service whose board of governors would be composed of three representatives of the state medical society, and one each of the state dental society, the state pharmacy association, the state nurses' association and the state hospital association. These members shall also choose two representatives of industry and two representatives of consumers.

Duties of the Corporation

This corporation shall manage the plan, employ administrative personnel, prepare rules, prepare fee schedules for various health services, control the finances and appoint committees as may be necessary. In each county or district in the state where the service is maintained local committees of five shall be set up by the medical, dental, nursing, hospital and pharmaceutical groups. The local medical committee shall have the duty of preparing a list of general practitioners and specialists who are willing and competent to provide medical services; of controlling the quality of medical service rendered; of hearing any complaints involving physicians, and of referring any complaints involving both a physician and a member of another professional group with recommendations to the mutual health committee of the district.

District mutual health committees are also to be set up in each district. These are to be composed of the chairmen of the five local committees plus one representative of local industry and one representative of local consumers chosen by the other five.

Patients are to have free choice of physicians among those listed by the local medical committees. Either patient or physician is to be privileged to make a change and the validity of his reason for change is not to be questioned. No physician is to be allowed to have more than 1,000 persons on his list, including dependents as well as wage earners, except that physicians who employ other physicians on salary shall be allowed to have a maximum of 1,600 or, if the local medical committee approves, a maximum of 2,000.

Certain Limits on Services

Each insured person shall be entitled to all the home, office and hospital care usually rendered by a general practitioner and in addition such services from specialists, nurses, pharmacists, laboratories and hospitals as may be necessary in the opinion of the general practitioner. However, the following limits are placed on these additional services: no hospital service for mental diseases or tuberculosis; 21-day limit on hospital care but with a 75 per cent discount on hospital charges after that up to a maximum of 90 days; 30-day limit on services of a special nurse and 60-day limit on services of a visiting nurse; the patient must pay the first 25 cents on the price of any prescription and the Mutual Health Service will pay the balance, and workmen's compensation cases are not to be included.

The costs of the service are to be borne by the employee or jointly by the employee and the employer. Payments are to be made in advance either weekly, monthly, semiannually or annually. For the experimental period the cost is put at $27.88 per person per year to be expended as follows:

General practitioner of medicine	$ 5.00	
Report of annual physical examination	.50	
Report of immunization	.25	31%
Medical specialists' services	3.00	
Dental services	5.00	18%
Nursing services	2.50	9%
Hospital services	5.00	18%
Drugs, medical, surgical, optical appliances	2.00	7%
Laboratory services	1.00	3.5%
Total	$24.25	
Administration, 10 per cent	2.42	9%
Surplus, 5 per cent	1.21	4.5%
Grand Total	$27.88	100%

The general practitioner's duties will be defined by the local medical committee. For performing these duties he will receive $5 per person.

The remuneration to hospitals and other special groups will be determined by fee schedules drawn up for each community or area by the local committees and transmitted through the district committees to the board of governors for final action.

In presenting the plan the speaker of the house of delegates, Dr. Henry A. Luce, vigorously scored the inactivity of the American Medical Association. He stated that representatives of the committee on medical economics had met with the national officers in Chicago requesting information, advice and guidance in the solution of their problems. "The information requested was not forthcoming," he said, "and the general attitude seemed to be antagonistic. . . . The advice was 'do nothing.' "

English Situation Investigated

A report was also presented summarizing the results of a visit to England to study health insurance there. From this study the two investigators, Doctor Luce and Dr. Nathan Sinai of the University of Michigan, drew the following conclusions:

1. From the professional standpoint there is little dissatisfaction in England with the fundamental purpose and the general operation.

2. The evidence was preponderantly to the effect that the quality of medical service had not deteriorated.

3. The financial difficulties of English health insurance arose from the increase in the cash benefit claims and not from the costs of medical service.

4. The information that has been given to the American medical profession through the London correspondent of the *Journal of the American Medical Association* has "conveyed an erroneous impression to their readers."

NEWS OF THE MONTH

Doctors Want Hospitals to Run N. C. Group Plan

The house of delegates of the North Carolina Medical Society on May 1 unanimously endorsed the recommendation of the society's president, Dr. Isaac H. Manning, that the North Carolina Hospital Association assume responsibility for the promotion and control of group hospitalization in that state.

At its meeting in April, the state hospital association had approved of group hospitalization on a noncommercial basis. Graham L. Davis of the Duke Endowment has been named on a committee to formulate principles for the development of group hospitalization in the state.

A. M. A. House of Delegates Will Discuss Insurance

For the consideration of medical economics, a special executive session of the house of delegates of the American Medical Association has been planned for the annual convention in Cleveland, June 11 to 15.

The bureau of medical economics of the A. M. A. has prepared a lengthy report on "The Insurance Principle in the Practice of Medicine," which is summarized in the *Journal of the American Medical Association* for May 12. It discusses chiefly the German and British systems of health insurance.

Sickness insurance, according to this report, "is one phase of the effort of industrial civilization to force a recalcitrant profession into industrial patterns. Such insurance means that a professional service is supplied under compulsion."

The report sees in all writings in support of sickness insurance plans a desire to develop the "large exploitation" of medical practice through groups, medical centers, clinics and insurance, and the same tendency to place the control of such institutions under lay management.

"One thing is clearly evident," the report concludes, "that the degree of satisfaction of insured and physician in practically every country depends on the extent to which the medical profession has been able to defeat the schemes of lay administration. England, France and the Scandinavian countries are the nations where professional control is complete and where the sort of proposals that are urged by lay forces in this country as a basis of sickness insurance have had least development."

In Germany where the insurance plan has long been tried, according to the A. M. A. report, "widespread doubt exists as to whether the attempt to distribute the whole burden of medical care and relief during sickness should not be abandoned in favor of a return to individual responsibility for a portion at least of that burden."

Lehman Signs Insurance Bill

Governor Lehman of New York State on May 16 signed the group hospitalization insurance bill, described in the May issue of The MODERN HOSPITAL. The New York legislature has the distinction of having passed the first comprehensive bill on hospital insurance in the country. The law will probably serve as a model for other states.

Unemployment Insurance Law Affects Hospitals

Wisconsin hospitals, along with other employers of labor, are subject to the new compulsory unemployment insurance law which goes into effect July 1. Neither hospitals nor clinics are exempt as such.

The employers included are those that within each of 18 or more calendar weeks of 1933 employed 10 or more persons, all or the greater part of whose work was done in Wisconsin. Excluded, however, are farm laborers, domestic servants in the home, school teachers, employees on unemployment relief projects, elected or appointed public officers, and persons unable or unwilling to work normal full time.

Employers who come within the act must pay 0.2 per cent of their pay roll to the unemployment administration fund. In addition they must either set up voluntary unemployment insurance plans of their own approved by the state industrial commission or they must pay 2 per cent of their pay roll into the state fund. Apparently each employer's contribution is to be kept separate since whenever his account reaches $55 per employee his rate of contribution drops to 1 per cent of the pay roll and whenever it reaches $75 per employee he can cease contributing. If the reserve falls below these figures contributions must be resumed or increased.

Payments to the unemployed worker are limited to 10 weeks and to a maximum of $10 a week or 50 per cent of his average wage, whichever is lower, except that they shall not go below $5 per week.

Whether employees in state, city and county hospitals are considered to be "appointed public officials" is not clear from a digest of the law prepared by the Wisconsin Hospital Association. Any hospitals having questions regarding the act may write to the industrial commission at Madison.

I. H. A. Holds Second Postgraduate Course

The 1934 postgraduate course and study trip of the International Hospital Association will be held in Switzerland in August. The course will be divided into three sections as follows: (1) preliminary meetings and lectures, August 15 to 18; (2) second postgraduate course, August 19 to 23, and (3) study trip to the Canton of Grisons, August 23 to 28.

Tickets for the first section will cost 90 Swiss francs, while tickets for each of the other sections will cost 150 Swiss francs. Separate tickets will be issued for each section so that participants may join only one section if they desire. Tickets may also be purchased daily for separate days. Reservations for the three sections should be booked before July 1, orders being addressed to the Secretary for Postgraduate Course 1934, Obergrundstrass 13, Lucerne, Switzerland.

An exhibition at the University of Berne from August 19 to 22 will show the latest developments in hospital architecture, technical management and equipment. Participants in the postgraduate course will be admitted free of charge. The studying tour through the Canton of Grisons will include stops at many villages and inspection of a state hospital project at Coire.

NEWS OF THE MONTH

Iowa State Hospital Association Convention Draws Record Crowd

Legislative achievements bulked large in the fifth annual convention of the Iowa Hospital Association held at Council Bluffs on April 30 and May 1. The association celebrated the passage of a hospital lien law and of a new law requiring county officials to use local hospitals and pay them for the care of indigent cases when the county's quota at the University Hospital is filled.

With a registration of about 250, the convention was the best attended in the history of the association. New officers are Thomas P. Sharpnack, Broadlawns Hospital, Des Moines, president, and Erwin C. Pohlman, University Hospitals, Iowa City, secretary.

Several Recommendations Made

The development of seven or eight district hospital councils in Iowa, a reexamination of the recent decision of the Iowa attorney general holding that group hospitalization is insurance, an agreement that counties should pay per diem costs for care of indigents, endorsement of legislation authorizing the RFC to make loans to hospitals, and the development of hospital publicity were recommended by the findings committee.

A special feature of the convention was a symposium on "The Human Touch in Hospitals." Suggested were: assure patient that the hospital will cooperate to control expenses, introduce nurses by name, explain the reason for various procedures and regulations, have patients make suggestions about the service, visit patients as often as possible, have homelike comfortable rooms with comfortable beds, plenty of linen, and correct lighting and temperature, provide food that is palatable as well as nourishing, and offer good books and other recreation.

Dr. Malcolm T. MacEachern, American College of Surgeons, Chicago, described a proper program of public relations. He said it must be: (1) continuous, not sporadic; (2) sponsored by hospitals jointly, if possible, or at least considerate of effects on other hospitals; (3) frank and truthful, not trying to evade important issues; (4) well organized and not slipshod; (5) directed toward school children, and (6) well buttressed by facts.

Janet M. Geister, Newark, N. J., pointed out sound ways of using nurses in a public educational program and warned against exploiting them. "Public information," she declared, "is more than the written and spoken word. It includes our attitudes in meeting and greeting John Public. In this the nurse can play a tremendous part. Good nursing care is paramount since it will make loyal, affectionate patients even though the building may be ramshackle." Miss Geister suggested that nurses participate in hospital publicity work by doing the things they know how to do such as demonstrating nursing service. She urged that hospitals build a loyal nursing corps by providing a real avenue for their criticisms and suggestions.

Alden B. Mills, managing editor, The MODERN HOSPITAL, declared that hospital councils were necessary as a beginning toward social planning of medical facilities, as administrative agents to do certain joint tasks, to raise professional standards, and to develop uniformity where desirable. He urged that the public be represented in such councils.

Dr. Frank L. Rector of the American Society for the Control of Cancer suggested that several hospitals in Iowa should develop complete tumor services.

Many Speakers on Program

Dr. Bert W. Caldwell, executive secretary, A. H. A., stated that voluntary hospitals should honestly recognize the place of government hospitals but should take a strong stand for public reimbursement for service to indigents.

The new commitment plan of the University of Iowa Hospitals was explained and discussed by Robert E. Neff. Other speakers included E. C. Pohlman; Margaret H. Rose, Washington, Ia.; Dr. F. J. Bean, Iowa City; Sister Mary Cyril, Le Mars; Rev. Harry E. Hess, Omaha, Neb.; F. P. G. Lattner, Dubuque; Rev. J. P. Van Horn, Cedar Rapids; Matthew O. Foley, Chicago; T. P. Sharpnack, Dr. C. H. Sprague, R. R. Hobart and R. A. Nettleton, all of Des Moines; Laura Henderson, president, Iowa League of Nursing Education; Dorothy Anderson, president, Iowa Dietetic Association, and Edna K. Huffman, president, Iowa Record Librarians Association. The organizations represented by the last three speakers met simultaneously with the hospital association.

Special features of the convention were the address by Robert Jolly, president-elect, A. H. A., at the banquet, and celebration of the fiftieth anniversary of the opening of the Jennie Edmundson Memorial Hospital in Council Bluffs. Tribute was paid to Mrs. Emma Lucas Louie, who has been superintendent for forty-seven of those years.

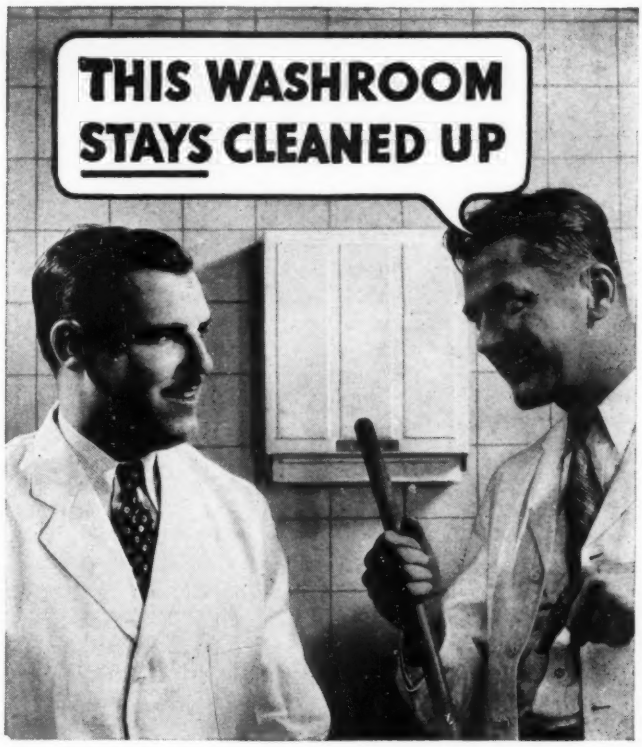
New Jersey Group Meets

The tenth annual convention of the New Jersey Hospital Association will be held at Atlantic City on June 8 and 9. Among those who will address the meeting, according to the tentative program, are Governor A. Harry Moore, Dr. Nathaniel W. Faxon, president, American Hospital Association, and director, Strong Memorial Hospital, Rochester, N. Y., and Frank Van Dyk, executive secretary, Hospital Council of Essex County, Newark.

Free Service Produces Deficit for N. Y. Child's

Fifty per cent of its ward service during the past year, as well as 85 per cent of its out-patient service, has been free, according to the report of the New York Nursery and Child's Hospital, the oldest children's hospital in the country. In consequence, a deficit of $45,602 has resulted. Of a total of 48,910 hospital days of ward service, 24,729 were free, and of the 28,094 visits to out-patients, 23,778 were made without charge.

The institution has 126 beds and its dispensary includes twelve clinics for the treatment and education of mothers and children. Last year the hospital supplied medical education on childbirth and medical supervision for 1,939 mothers and 1,273 babies. The dispensary served 3,247 children.



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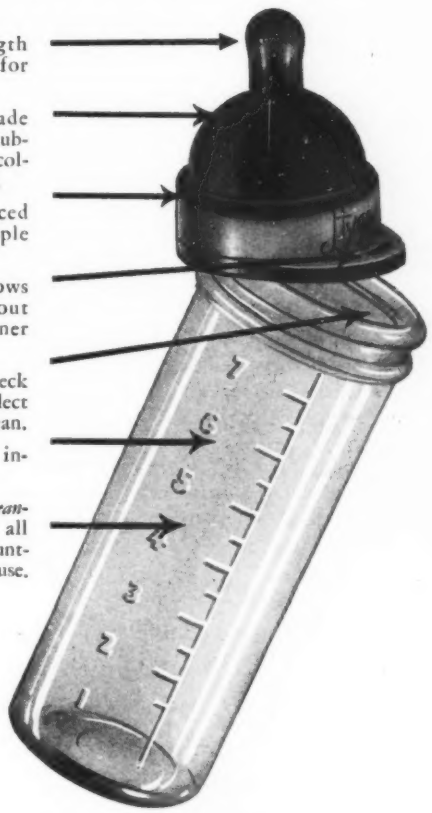

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NEWS OF THE MONTH

Florida Association Meets at Jacksonville

Group hospitalization, replacement of training schools by graduate nursing service, payment of doctors for institutional charity work and other general topics of current interest received attention at the round table conferences at the annual meeting of the Florida Hospital Association in Jacksonville on April 30. No formal papers were presented. Attendance, while not large, was representative of all sections of the state.

The following officers were elected: president, Dorothy B. Thurston, Halifax District Hospital, Daytona; president-elect, Mary Corbitt, James M. Jackson Memorial Hospital, Miami; vice president, Katharine A. Moyer, Lake Wales Hospital, Lake Wales; treasurer, J. H. Holcombe, St. Luke's Hospital, Jacksonville; executive secretary, Fred M. Walker, Duval County Hospital, Jacksonville.

Presbyterian Asks Aid to Carry on Free Work

An appeal for funds to enable the Presbyterian Hospital, New York City, to increase its service to the needy has been issued. It is indicated that "sick and disabled at the rate of 1,400 a day come to our out-patient department." An average of 300 a day pay nothing, it is estimated. Sixty per cent of the ward service is given free with more than 10,000 patients received yearly.

Dr. Charles Pilgrim Dies; Hospital Named for Him

Dr. Charles Winfield Pilgrim, well known psychiatrist of New York State and former president of the New York State Lunacy Commission, died at the age of 79 at his home in Central Valley, N. Y.

In recognition of the outstanding service performed by Doctor Pilgrim in the state hospitals and among the mentally ill of New York State, the New York State legislature in 1929 authorized construction of the Charles W. Pilgrim State Hospital in Brentwood, N. Y., which when completed will be the largest mental disease hospital in New York with a bed capacity of 10,000. In addition to other posts, Doctor Pilgrim was at one time medical superintendent of the Willard State Hospital, Willard, and also of the Hudson River State Hospital, Poughkeepsie.

Foley Honored at Testimonial Dinner

A testimonial dinner to honor Matthew O. Foley for his service to hospitals by introducing National Hospital Day was held in Chicago on May 11. At the conclusion of the dinner an illuminated manuscript was presented to Mr. Foley on behalf of the American Hospital Association by Dr. Bert W. Caldwell, the executive secretary.

The principal address of the evening was by Lewis Bernays, British consul-general at Chicago, who discussed the service of physicians and hospitals and the achievements that have resulted from Florence Nightingale's work.

Eulogies of Mr. Foley were given by Howard E. Hodge, superintendent, Decatur and Macon County Hospital, Decatur, Ill.; Colonel Hugh Scott, superintendent, U. S. Veterans Bureau Facility, Hines, Ill.; Veronica Miller, superintendent, Henrotin Hospital; Asa Bacon, superintendent, Presbyterian Hospital; Dr. M. L. Harris, and Alden B. Mills, managing editor, The MODERN HOSPITAL, all of Chicago. Mr. Mr. Foley responded briefly. About forty hospital people were present.

Coming Meetings

Hospital Association of Rhode Island.
President, Dr. William O. Rice, Rhode Island Hospital, Providence.
Secretary-Treasurer, Helen M. Blaisdell, Westerly Hospital, Westerly.
Next meeting, East Greenwich, June 6.

New Jersey Hospital Association.
President, Marie Louis, Muhlenberg Hospital, Plainfield.
Executive secretary, Charles F. Dwyer, Newark City Hospital, Newark.
Next meeting, Atlantic City, June 8-9.

Advisory Board for Medical Specialties.
President, Dr. Louis B. Wilson, Rochester, Minn.
Secretary-Treasurer, Dr. Paul Titus, 1015 Highland Building, Pittsburgh, Pa.
Next meeting, Cleveland, June 10.

American Medical Association.
President, Dr. Dean DeWitt Lewis, Johns Hopkins Hospital, Baltimore.
Secretary, Dr. Olin West, 535 North Dearborn Street, Chicago.
Next meeting, Cleveland, June 11-15.

Catholic Hospital Association.
President, Rev. Alphonse M. Schwitalla, St. Louis University, St. Louis.
Executive secretary, M. R. Kneifl, 1402 South Grand Boulevard, St. Louis.
Next meeting, Cleveland, June 18-22.

Canadian Nurses' Association.
President, Mabel F. Hersey, Royal Victoria Hospital, Montreal.
Executive secretary, Jean S. Wilson, 1411 Crescent Street, Montreal.
Next meeting, Toronto, June 26-30.

American Public Health Association.
President, Dr. Haven Emerson, New York.
Executive secretary, Dr. Kendall Emerson, 50 W. 50th Street, New York.
Next meeting, Pasadena, Calif., Sept. 3-6.

American Protestant Hospital Association.
President, C. S. Pitcher, Philadelphia.
Executive secretary, Dr. Frank C. English, 3233 Griest Avenue, Cincinnati.
Next meeting, Philadelphia, Sept. 21-24.

American College of Hospital Administrators.
Director-General, J. Dewey Lutes, Ravenswood Hospital, Chicago.
Next meeting, Philadelphia, Sept. 23.

American Hospital Association.
President, Dr. Nathaniel W. Faxon, Strong Memorial Hospital, Rochester, N. Y.
Executive secretary, Dr. Bert W. Caldwell, 18 East Division Street, Chicago.
Next meeting, Philadelphia, Sept. 24-28.

American Occupational Therapy Association.
President, Dr. Joseph C. Doane, Jewish Hospital, Philadelphia.
Secretary-Treasurer, Mrs. Eleanor Clarke Slagle, Room 1511, 175 Fifth Avenue, New York City.
Next meeting, Philadelphia, Sept. 24-28.

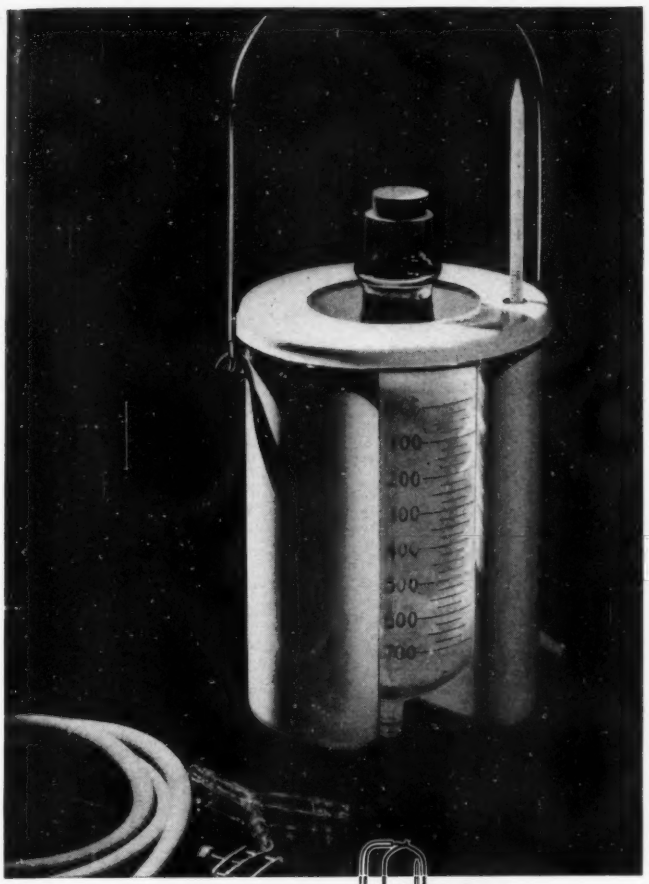
Ontario Hospital Association.
President, R. Fraser Armstrong, Kingston.
Secretary-Treasurer, Dr. Fred W. Routley, 410 Sherbourne Street, Toronto.
Next meeting, Toronto, Oct. 10-12.

American Dietetic Association.
President, Quindara Oliver Dodge, Simmons College, Boston.
Business manager, Dorothy I. Lenfest, 185 North Wabash Avenue, Chicago.
Next meeting, Washington, D. C., Oct. 15-18.

American College of Surgeons.
President, Dr. Wm. David Haggard, Nashville, Tenn.
Executive secretary, M. T. Farrow, 40 East Erie Street, Chicago.
Next meeting, Boston, Oct. 15.

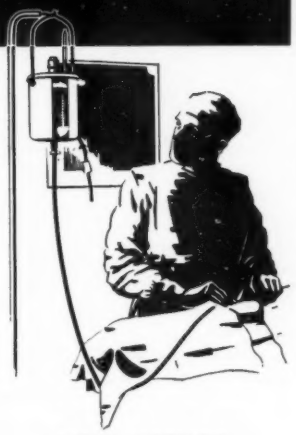
Association of Record Librarians of North America.
President, Evelyn M. Vredenburg, Woman's Hospital, New York City.
Corresponding secretary, Alice G. Kirkland, Samuel Merritt Hospital, Oakland, Calif.
Next meeting, Boston, Oct. 15.

Kansas Hospital Association.
President, John E. Landers, Wesley Hospital, Wichita.
Secretary, Dr. John T. Axtell, Axtell Christian Hospital, Newton.
Next meeting, Newton, Oct. 27.



NEW AND EXACT METHOD OF KEEPING SOLUTIONS AT CORRECT TEMPERATURE

OLD METHOD
Confusion
Uncertainty



NEW METHOD
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ONE of the outstanding service improvements in the hospital field in the past two years is the Good Samaritan Infusion Radiator. This provides a simple method of keeping solutions warm. The solution jar is held in a specially designed metal jacket that can be filled with hot water. This not only acts as a carrier for the jar — preventing breakage — but also maintains temperature of solutions within correct temperature field for long periods without confusion or attention. It saves hours of time and insures better results. Hundreds of hospitals have put their approval on this advanced idea by actual daily use.

Even if you are not considering the purchase of new equipment at this time you should have all the facts about the Good Samaritan Infusion Radiator in your file. We shall be glad to give you complete data on request.

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COMPARED to all other general laboratory microscopes, this Spencer No. 13-MLH is definitely more efficient—the result of a "balanced" optical system. The condenser of this Spencer No. 13-MLH Laboratory Microscope has a numerical aperture of 1.25—the same as the oil immersion objective. This condenser allows a larger cone of light than a condenser of N. A. 1.20, usually supplied on laboratory microscopes, resulting in a clearer, more distinct image showing greater detail of the specimen.

THESE TWO PHOTOMICROGRAPHS SHOW THE EFFECT OF INSUFFICIENT NUMERICAL APERTURE

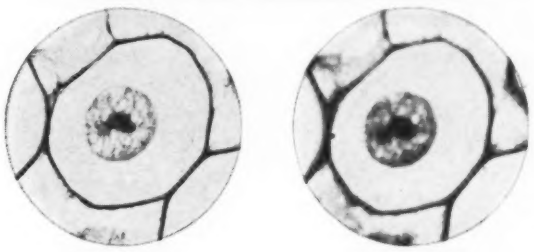

PHOTO A PHOTO B

Photomicrograph A shows detail resolved thru a "balanced" optical system. Photomicrograph B, the result when the resolution is deliberately destroyed by reducing the numerical aperture at one point in the optical system. All other conditions, except the change in numerical aperture, were held exactly the same when these photomicrographs were taken.

Added to this "balanced" optical system are the **exclusive** Spencer mechanical advantages such as **(1)** Fork-type substage **(2)** Conical eyepieces **(3)** Dual-cone nosepiece.

If you are contemplating the purchase of laboratory microscopes, be sure to write for Folder M-58-M which gives complete description and prices.

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PERSONALS

MADGE REES, superintendent of Cohoes Hospital, Cohoes, N. Y., resigned on May 1. MISS REES had been associated with the hospital for more than twenty years.

C. E. KIMLIN, president of the Hospital Council of Southern California and manager of Glendale Sanitarium and Hospital, Glendale, Calif., died recently.

KATHERINE MURPHY has resigned as superintendent of National Vaudeville Artists' Sanatorium, Saranac Lake, N. Y., which position she has held for the past ten years. HERMAN LEVINE is serving temporarily as acting superintendent of the institution.

DR. A. C. BACHMEYER will resign as dean of the University of Cincinnati College of Medicine, effective September 15. DOCTOR BACHMEYER, however, will continue on the faculty of the college, and will also retain his present hospital connections.

DR. JACOB BREID has retired as superintendent of Sac and Fox Sanatorium, Toledo, Iowa, being succeeded by DR. IRA D. NELSON, formerly superintendent of Claremore Hospital, Claremore, Okla.

DR. EDWARD C. RUGE has tendered his resignation as superintendent of Northern State Hospital, Sedro-Woolley, Wash.

FREDA CONSIGNY, superintendent of St. Peter's Hospital, Helena, Mont., for the past seven years, resigned on June 1.

MARIE HERBSTER, who has been associated with Elko General Hospital, Elko, Nev., has been appointed superintendent of the institution. MISS HERBSTER is a graduate of Missouri Methodist Hospital, St. Joseph, Mo.

DR. ALLEN KANE, who has been in charge of Sea View Hospital, Staten Island, N. Y., has been named acting superintendent of Municipal Sanatorium for Tuberculosis, Otisville, N. Y., succeeding DR. LOUIS COHEN.

DR. JOHN J. PRENDERGAST has been named acting superintendent of Detroit Receiving Hospital, Detroit. DOCTOR PRENDERGAST has been associated with the hospital since 1929, and during the past year has been chief resident surgeon.

REV. CARROLL H. LEWIS, who was recently chosen as president-elect of the Ohio Hospital Association, has resigned as executive director of Christ Hospital, Cincinnati.

CATHERINE M. THOMMEN has been appointed superintendent of Bowdle Community Hospital, Bowdle, S. D.

SISTER CYRIL, director of the Seton School of Nursing, Colorado Springs, Colo., has been appointed by Gov. Edwin C. Johnson as a member of the Colorado board of nurses' examiners. It is the first time in the history of Colorado that a nun has been appointed on the board. SISTER CYRIL, as head of the Seton school, directs training of nurses at Glockner Sanatorium and Hospital, Colorado Springs; St. Mary's Hospital, Pueblo, and Mount San Rafael Hospital, Trinidad.

GRACE RUSSELL, for the past seventeen years superintendent of the Chapin Home for the Aged and Infirm, Jamaica, N. Y., died recently after an illness of five months.

DR. WILLIAM H. WELCH, first professor of pathology at Johns Hopkins Medical School, Baltimore, died recently at the age of eighty-four years. On Doctor Welch's eightieth birthday in 1930, PRESIDENT HERBERT HOOVER said of him: "... more than any other American he has contributed to the relief of human suffering and pain." DOCTOR WELCH retired in 1931.

DR. PETER J. JOHNSON, medical superintendent at Cumberland Hospital, Brooklyn, N. Y., has been dismissed by DR. S. S. GOLDWATER, commissioner of hospitals. Until his successor is chosen, DOCTOR JOHNSON'S post will be filled by DR. MARCUS KOGEL, deputy medical superintendent of the hospital.

REV. J. H. BAUERNFEIND, who for twenty-two years has been superintendent of Evangelical Deaconess Hospital, Chicago, resigned on May 1 because of impaired health. ARTHUR J. BYAS of Naperville, Ill., who for ten years has been a member of the board of the hospital, has been chosen superintendent.

GEORGE W. WOLF, business manager of Lafayette Home Hospital, Lafayette, Ind., has resigned. His place is not to be filled.

ADDA ELDREDGE, R.N., has resigned as director of the Wisconsin Bureau of Nursing and will take up her residence in Chicago.

Cornell Offers Course in Hospital Operation

A two-week summer course in hospital operation planned especially for hospital officials and staffs has been announced by Cornell University, Ithaca, N. Y. John C. Dinsmore of the University of Chicago Clinics, a department editor of The MODERN HOSPITAL, will be in charge.

The course will open on July 2. Mornings will be given over to lectures and afternoons will be devoted to round table discussions. In addition, courses in personnel management, quantity food preparation, stewarding, housekeeping and public relations are available for summer school students.

Lay Corner Stone of New Polyclinic Hospital

The corner stone of the new Chicago Polyclinic, which will replace Henrotin Hospital, was laid with appropriate ceremonies on May 11. The new hospital will contain 100 beds and will be completely air conditioned. One unusual feature of the project is that funds for construction of the entire building are now in hand, the hospital having received enough in damages through a street widening to defray the cost of the new building.

Child Behavior Course Open to Nurses

For the benefit of graduate nurses specializing in pediatric nursing, a course affording practical experience in working with young children is being given by Dr. Grace Langdon at the Child Development Institute, Teachers College, Columbia University. The course will begin June 11 and will continue to July 6. It offers two to four points college credit.

BOOKS ON REVIEW

THE HOSPITAL MANUAL OF OPERATION. *By Warren P. Morrill, Ph.B., M.D. New York: Lakeside Publishing Co.*, 1934. *Pp.* 315. $3.

Doctor Morrill has once more prepared what should prove to be a valuable contribution to hospital administration. Reading between the lines, one senses the author's wealth of personal experience. Fifteen well chosen chapters are devoted or, as the author says, limited to practical everyday problems, and there is much practical advice planned to assist the hospital administrator to avoid the many pitfalls along his way.

This manual might have been enhanced by more liberal use of illustrations. Only slight reference in passing is made to social service and practically no mention is made of occupational therapy, the patients' library, physiotherapy, hydrotherapy and electrotherapy and the x-ray department. The formulas for use in the laundry and the housekeeping department should prove valuable, especially to beginners in the field and to smaller hospitals. Extensive bibliographies follow each chapter and there is a general bibliography of former publications on hospital administrative procedures.

Doctor Morrill is to be congratulated on this valuable contribution from his extensive hospital experience.—A. K. HAYWOOD, M.D.

MENTAL HYGIENE IN THE COMMUNITY. *By Clara Bassett. New York: The Macmillan Company. Pp.* 394, *including bibliographies and index.* $3.50.

This timely and well organized book defines the concept of mental hygiene, marshals the facts as to the alarmingly high incidence of mental disease and then proceeds in a sound, eminently practical way to indicate the applicability of these principles and concepts to community planning.

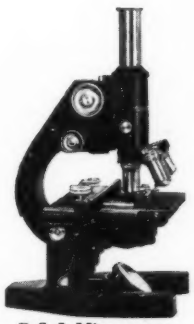
While the book will be of undoubted interest and value to intelligent laymen, it will fill a place in the library of the physician and hospital superintendent long uniquely empty. The book is at once definitive and suggestive, wide in its scope and restrained in its enthusiasm.

Miss Bassett evidently "knows her stuff." For many years she has been consultant in psychiatric social work of the division of community clinics of the National Committee for Mental Hygiene. From this vantage point she has been able to gather her material and to reach her conclusions—conclusions of great moment to every forward looking physician, whether he is in private practice, a specialist, on the staff of an institution or a hospital superintendent.

Those who are responsible for the curriculums of medical schools and schools of nursing will find the chapters on "Mental Hygiene and Medicine," "Mental Hygiene and Nursing," "Mental Hygiene and Psychiatric Institutions and Agencies" serviceable and stimulating.

In this day when all social and health services are obviously in a state of imbalance and flux, this book with admirable clarity points the way to the physician and health worker. In fact, it opens the door to a field in medical art hitherto seldom entered by any save those practicing psychiatry, so that the doctor may make a contribution, humanistic and scientific, by seeing to it that the principles of mental hygiene are built into the social and health services in his community.—MARGARET HAGAN.

The Physician's Optical Tools—



B & L Microscope HSA

Bausch & Lomb Instruments have long been the standard of Comparison among Optical Products. The following instruments are designed specifically for hospitals and the medical profession.

H S A PHYSICIANS' MICROSCOPE

This newly designed B & L Microscope is larger in size and its construction provides for an exchange of the monocular body tube for a binocular body.

B & L HEMOGLOBINOMETER

The extreme sensitivity and ease of matching the two fields of the B & L Hemoglobinometer for determining the amount of hemoglobin in a sample of blood reduces the personal equation factor to a minimum.

B & L HAEMACYTOMETER

It has one-piece Counting Chamber with specially ruled lines for visibility, accuracy of spacing and clean edges. Depth under coverglass is accurate at 0.1 mm. over the entire ruled area. A Bureau of Standards Certificate can be supplied if ordered.

B & L MICROTOMES

There is a B & L Microtome for every purpose from the individual physician's laboratory to the large hospital or clinic laboratory—and for every type of specimen sectioning.

Literature on any or all of the above instruments is available on request to Bausch & Lomb Optical Company, 656 St. Paul Street, Rochester, N. Y.

• • •

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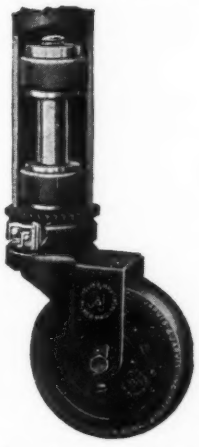

No other Caster made can give you so many outstanding advantages. Besides its shock absorbing quality, it has a double ball bearing swivel. It is ever free from dust and germs. It greatly prolongs the life of the equipment it is used on.

Hospitals everywhere are specifying J&J Casters. Why not try a set on approval? Specify size desired: 2", 3", 4", 5" or 6". . . . . *Write Today!*

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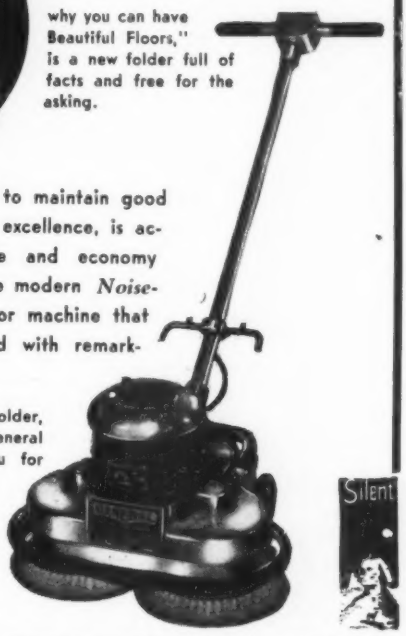

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Back of these solutions are five years of research, first, two years of development work, then, three years of successful clinical use by a selected group of hospitals. Various percentages of Dextrose are available in distilled water or normal Saline Solution in 1000 cc. Vacoliters.

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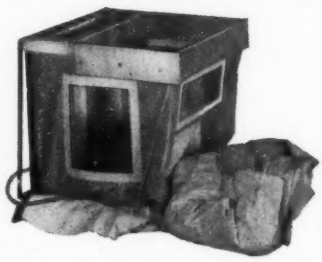
NEWS FROM MANUFACTURERS

A PORTABLE, LOW PRICED OXYGEN TENT

A new development in oxygen therapy is claimed by Warren E. Collins, Inc., Boston, in announcing its new Burgess Collins Oxygen Tent. The tent was especially designed, it is pointed out, for the purpose of making effective oxygen therapy universally available. Low price, simplicity of operation, comfort for the patient and portability are mentioned as features of the tent.

The new tent consists of a rubberized fabric approximately 18 inches square attached to a metal frame which rests on pillows. This fabric is provided with windows in convenient locations and a soft rubber collar which fits over the patient's neck. Two inlets on opposite sides of the fabric convey the oxygen to the patient. A small ice container back of the patient's head keeps the air cool. The top of the tent is left wide open with the exception of the section holding the ice container, which is enclosed with a baffle curtain. One advantage of the open top, it is explained, is that it tends to facilitate nursing care.



Instead of escaping through the open top, the oxygen-rich air, due to the law of convection, tends to settle to the bottom of the tent and forms a stratum which completely surrounds the patient's face, the manufacturer points out. Actual analysis, according to the manufacturer, shows that with a 2.4-liter flow of oxygen per minute the oxygen concentration was found to be 61.1 per cent two inches from the bottom of the tent and 44.1 per cent at a point where the patient's mouth would be. The oxygen concentration can be increased by increasing the flow of oxygen.

PATCHING MATERIAL FOR WALLS

A new patching material, Stonhard Wallseal, for repairing broken and spalled wall and floor surfaces, both inside and outside, has been announced by Stonhard Company, 401 North Broad Street, Philadelphia. This new patching material, according to the manufacturer, contains an expanding chemical that compensates for the evaporation of water and causes the material to lock securely and adhere permanently to the surface to which it is applied.

The material comes in powder form and is mixed with water to produce a stiff paste. This paste may be applied with either a trowel or a putty knife and will dry in twenty minutes, the manufacturer states.

A NEW SQUIBB PRODUCT

A new product that has just been announced by Squibb Laboratories is Squibb Halibut-Liver Oil Concentrate Tablets with Viosterol 250-D. These chocolate-coated tablets, according to the manufacturer, may be prescribed by physicians as an alternative means of administering the vitamins of Viosterol-fortified Halibut-Liver Oil. Each tablet, it is stated, equals in vitamin A and D potency ten drops (approximately 10 mins.) of Squibb's Stabilized Halibut-Liver Oil with Viosterol 250-D.

A NEW TYPE BATHTUB

The bathtub underwent its first major change since the original stationary tub was installed in this country in 1841, with the announcement of a new four-foot square tub containing an integral shower seat and a diagonal bathing recess the same size as that in a five and one-half foot-tub of the traditional type.

Known as the Neo-Angle Bath, this fixture has a second integral seat for convenience in entering or leaving the tub, to make it unnecessary to teeter in, first on one foot and then the other.

Constructed as a functional unit, the tub, which has been placed on the market by Standard Sanitary Manufacturing Company, Pittsburgh, has been created to meet every possible function that could be expected of the modern bath that is used not only for cleanliness but for relaxation and rejuvenation as well, according to the designers.

The seat at the rear, which is used as a shower seat, becomes a seat for a good, vigorous lather when one is taking a tub. Again, the front seat becomes a seat for a foot bath when desired, while either seat in turn serves as a shelf to hold wash cloths, brushes and other articles that are always sliding into the water or on to the floor from a tub of conventional design.

Thus, the designers declare, the tub, which is available in white and a line of ten colors, becomes in truth a shower bath, a tub bath, a child bath and a foot bath. Architecturally, they point out, it opens up a whole field of new opportunities for the hospital bathroom. While it can be installed across one end of the conventional long, narrow bathroom, it is no longer necessary to have an oblong room, and a square space can be used for installation of the tub when it is available.

Water spray from the shower is directed back into the tub, and splash is eliminated, minimizing the need for waterproofing.

NEW TRADE CATALOGUES AND PAMPHLETS

Davis & Geck, Inc.—A brief description of subjects available in D & G Surgical Motion Pictures is contained in a small catalogue published recently by Davis & Geck, Inc., 217 Duffield Street, Brooklyn, N. Y. These films are available for bookings, without charge, to medical schools, hospitals and other accredited professional organizations, it is pointed out.

Johns-Manville—A booklet has been published by Johns-Manville, 22 East Fortieth Street, New York City, describing a new building material which is called Hard Board. The product is manufactured from natural wood fibers, and the finished boards are four feet wide. There are many uses for Hard Board in the hospital, these being fully described in the booklet.

Hoberg Paper and Fibre Co.—A new booklet describing "Sani-sorb" cellulose wadding, an absorbent material for making hospital dressings, has been published by Hoberg Paper and Fibre Co., Green Bay, Wis., manufacturer of the product.

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A MOTOR-ON-TOP FINNELL!

More speed—more power—and now more weight on the brush! Thus *Finnell* adds one more advantage to the numerous superior features of its "100 Series." Four brush ring diameters—11, 13, 15 and 18 inches—each powered and WEIGHTED by a sturdy General Electric Motor—typical of *Finnell* quality in all parts.

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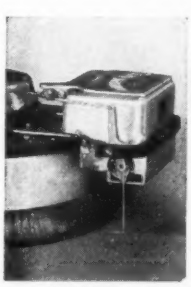
A remarkable feature of these latest *Finnells* is the automatic switch control on the handle. When the operator takes his hand off the handle, the machine stops. This is an important advantage on a motor weighted machine, assuring utmost safety. The machine cannot "run away."

For full details of this new edition—or for information on the full *Finnell* line of scrubber-polishers, address FINNELL SYSTEM, INC., 1406 East Street, Elkhart, Indiana. Canadian Distributor: Dustbane Products, Ltd., 207 Sparks Street, Ottawa, Ontario.



A Complete Line of Sealers, Fillers, Waxes, Soaps

Hospitals generally have welcomed *Finnell* Gloss Seal—a high gloss surface sealer for large areas of heavy traffic. *Finnell* Aqua-Wax, requires no buffing—has a lustre of amazing endurance. Finnell Kote, applied hot, (see small cut), is a quick-setting, time-saving, long-lasting, quick-drying, non-slipping protection for all polished floors. Other products: Liquid-Kote; Fulfil, for filling porous floors; Solarbrite, a safe and effective soap solution; Finola, the standard scouring powder. Ask for samples of any or all.

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The country's leading hospitals are serving these delightfully cool, delicious new Gumpert "Refreshants" this summer. Patients appreciate the finer quality of Gumpert's Fruit Punch, Grape, Lemon and Orange—Gumpert's Double-Rich Chocolate Syrup for preparing chocolate milk drinks—and Gumpert's Jellied Bouillons . . . . Beef and Tomato.

Unequalled for delicacy of flavor, nutritious wholesomeness and genuine ease and economy in preparation. Try these new Gumpert "Refreshants," *without cost or obligation.* Mail coupon below for generous FREE sample NOW!

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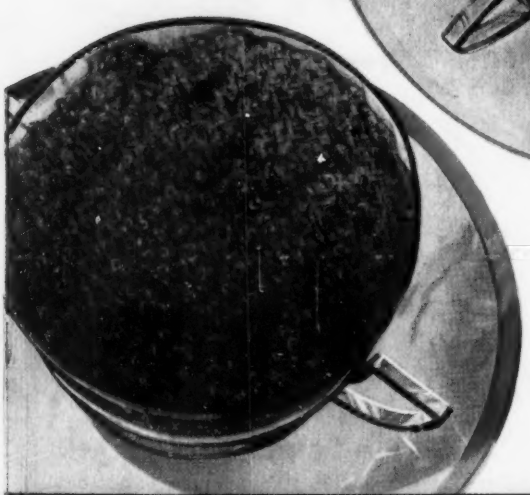
Gumpert's Iced Grape Punch

Gumpert's Jellied Tomato Consommé



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